

EXHIBIT “V”

1 forward. I know it's probably hard when you are kind of
2 kept in the dark and not exactly sure where we are in the
3 progression of this trial, but we are making progress,
4 despite what it may seem like at times, and that's where
5 we are. So, I wanted to tell you that and thank you very
6 much again for your patience and understanding.

7 The defense may call its next witness.

8 MR. COFFEY: Thank you, Judge. Dr. Leestma,
9 please.

10 JAN EDWARD LEESTMA, after first having been duly sworn by the
11 Clerk of the Court, was examined and testified as follows:

12 THE CLERK: The sworn witness is Jan Edward
13 Leestma, L-E-E-S-T-M-A.

14 **DIRECT EXAMINATION**

15 **BY MR. COFFEY:**

16 Q. Good morning, Doctor.

17 A. Good morning.

18 Q. Doctor, would you be kind enough to tell the jury
19 your name and occupation, please.

20 A. Sure. My name is Jan Edward Leestma, L-E-E-S-T-M-A,
21 and I'm a physician, a pathologist.

22 Q. I'm sorry. You are a what?

23 A. I'm a pathologist, neuropathologist.

24 Q. Doctor, where do you presently practice or where is
25 your office?

1 A. I live and practice in Chicago, Illinois.

2 Q. And we have done this with every doctor, so I suppose
3 you should be no different. Tell us a little bit about your
4 educational background.

5 A. Sure. I attended Hope College in Holland, Michigan,
6 from 1956 to 1960, and received a Bachelor of Arts degree in
7 chemistry and biology, went then to the University of Michigan
8 School of Medicine in Ann Arbor from '60 to '64 and graduated
9 with an M.D. degree.

10 Q. Okay.

11 A. And then went onto postgraduate training in pathology
12 at the University of Colorado School of Medicine in Denver.
13 First two years were spent performing anatomic pathology or
14 general pathology, and then the last year that I was in Denver,
15 I began my neuropathology training in disease, and I completed
16 that at the Albert Einstein College of Medicine in the Bronx,
17 New York, in 1968; so, four years of postgraduate training, and
18 I completed my postgraduate training at that time.

19 Q. Okay. Now, Doctor, we are going to go back to that a
20 little bit, but I would like to ask you this: You indicated
21 that you are a neuropathologist?

22 A. Yes, sir.

23 Q. And we have heard this from every doctor here, as
24 well. Are you board certified?

25 A. Yes, I am.

1 Q. And when were you board certified?

2 A. I believe it was 1970, I was board certified in
3 anatomic pathology and neuropathology, two separate boards.

4 Q. Okay. Now, are there different kinds of pathologies?

5 A. Yes.

6 Q. You said anatomic. Just tell us what anatomic is.

7 A. Anatomic pathology, basically, is hospital pathology
8 relating to autopsies, surgical pathology, things of that sort,
9 the main tools of the microscope, and I had received training
10 and board certification in that, diseases of all organs of the
11 body.

12 Q. Okay. And to be a pathologist doesn't necessarily
13 mean you examine people who have died, correct; I mean tissues?

14 A. No. That's part of it. If someone should die in the
15 hospital, the pathologist, if there's a permit for it, would be
16 the one who does the autopsy and determines what was going on.
17 But a considerable part of the other experience is dealing with
18 material that comes from the operating room, perform frozen
19 sections, interoperative diagnosis on a breast lump, for
20 example, brain tumor or whatever, and tell the surgeon what it
21 is. So, these days, that's become a huge part of what anatomic
22 pathology is. Another part of it would be reading pap smears
23 and things like that.

24 Q. Okay. And Doctor, over the course of your
25 experience, have you been present at autopsies?

1 A. Yes.

2 Q. And let me ask you - not just autopsies - in terms of
3 if you had occasion, in your experience, to examine brains?

4 A. Sure. That's part of the regular experience in an
5 autopsy, is one of the organs that is taken out and is
6 examined. The general pathologist or anatomic pathologist
7 qualified to do that in medical centers, teaching institutions,
8 they usually have somebody like me who is a neuropathologist
9 and then would perform that part of the examination and add to
10 the information that would make up the final report.

11 Q. What is a neuropathologist?

12 A. Well, it's somebody who has basic training in
13 pathology, anatomic pathology and then has focused, usually two
14 years or so, in training on the diseases of the nervous system,
15 what they look like under the microscope, how the disease
16 process plays itself out, how it works, and that's basically
17 what the neuropathologist does.

18 Q. Well, is there a difference between a forensic
19 pathologist and a neuropathologist?

20 A. Yes.

21 Q. And what is that difference?

22 A. Forensic pathology is a recognized discipline and
23 there are boards for that. And basically, it's pathology as it
24 touches the legal system; that is, the cause of death. But
25 then the forensic pathologist usually is targeted with the

1 responsibility of determining the manner of death, which is
2 five things; homicide, suicide, accidental, natural or
3 undetermined. And they are usually the one -- if they have to
4 do the autopsy, they will generate a death certificate to
5 satisfy the legal requirements for that job.

6 Q. In terms of examining brains and organs, is there any
7 difference between a forensic pathologist and a
8 neuropathologist?

9 A. Some are. Some have training in multiple areas,
10 including neuropathology, and that's increasingly more common
11 these days.

12 Q. Well, in terms of examining a brain, does it make a
13 difference whether the brain is being examined -- the brain
14 doesn't know whether it's being examined by a neuropathologist
15 or a forensic pathologist; correct?

16 A. Well, it depends. Sometimes forensic pathologists do
17 have training in neuropath, and that would be good. Generally,
18 the experience, when you focus on one thing and learn the huge
19 breadth of information that's required to understand brain
20 disease, they are probably going further down the curve than
21 somebody who maybe doesn't spend that much time doing it.
22 There's a lot of nuances there. So, generally, a
23 neuropathologist examining a brain will give you a more
24 thorough, complete examination and, hopefully, conclusion than
25 someone else.

1 Q. Now, Doctor, I may have asked you this. If I did, I
2 apologize. How many brains, for example, do you believe you
3 have examined in the past?

4 A. My estimate, in the years I have been at it, 45 years
5 or something like that, about 20,000 brain specimens.

6 Q. And what were the reasons -- I'm sure there were
7 various reasons. But what were the reasons why you examined
8 these 20,000 brain specimens?

9 A. Well, the usual situation -- or it started out that
10 way, that I was head of neuropathology at the Northwestern
11 University Center in Chicago. And so at that time, in 1971
12 when I was there, that medical center and the affiliated
13 hospitals probably performed -- my guess would be about 1500
14 autopsies a year. And unless they are restricted, most of them
15 would have a brain specimen, and it would be my job and the
16 people that work with me and for me to do those examinations.
17 So, it started out with hospital autopsies, and when that
18 declined, then I moved over to the Cook County Medical
19 Examiner's Office, where I probably -- I don't know how many I
20 examined in a year, but they all add up. And there were times
21 when I was probably examining a thousand brains plus a year,
22 and then it diminished somewhat; but over the years, my
23 calculation is about 20,000.

24 Q. Okay. Now, Doctor, we have heard a lot of testimony.
25 Were you here during the testimony of Dr. Sikirica?

1 A. Yes.

2 Q. And he is a medical examiner in Rensselaer County.

3 Are you aware of that?

4 A. That's right.

5 Q. Doctor, did there come a point in time in the past
6 when you were retained in 2008 or 2009 to examine the autopsy
7 and the slides of a young infant named [REDACTED]?

8 A. That's correct.

9 Q. Okay. And you testified in a previous proceeding in
10 this regard; correct?

11 A. I have, yes.

12 Q. Doctor, before trial, have you and I met?

13 A. Yes.

14 Q. You remember that?

15 A. I sure do.

16 Q. And where did we first meet?

17 A. You and your associate, Mr. Frost, came to Chicago in
18 my office, and we spent a few hours there talking; and then I
19 have had subsequent contact by phone and in person since I have
20 been here in Troy.

21 Q. Now, Doctor, you are being paid for your time;
22 correct?

23 A. That's my understanding.

24 Q. Now, I want to ask you some other questions if I can.
25 In order for you to testify here today, have you examined

1 certain records?

2 A. That's usually part of it. There's different things
3 that I need to see. There's background information, which
4 would include hospital reports, medical reports, the autopsy
5 report, if there is one; you know, things of that sort that
6 sort of put the context of where a case is. Most importantly
7 is the objective evidence, which is the things that nobody can
8 mess with. In other words, it is what it is and it doesn't
9 matter who looks at it - the factual material is there - and
10 that would be autopsy photographs.

11 Q. Have you reviewed those?

12 A. Yes.

13 Q. All right.

14 A. Autopsy photographs, radiographic imaging studies, if
15 they exist.

16 Q. Okay.

17 A. Microscopic tissue slides that have been prepared of
18 the autopsy tissues, and to a lesser degree, laboratory reports
19 and things like that, because these are things that are
20 objective and basically don't involve -- I mean, they may be an
21 opinion, but I can look at it unvarnished by that and make up
22 my own mind with what's there. So, it's a synthesis of all of
23 these things that comes down to what results in an opinion.

24 Q. Let's talk about the slides, the tissues, the
25 photographs and so forth. Were they provided to you back in

1 2008 or 2009?

2 A. Yes.

3 Q. And did you rely upon those in forming an opinion;
4 and at a prior proceeding, did you utilize and testify with
5 regard to those?

6 A. Correct.

7 Q. Now, Doctor, have you also made photographs of the --
8 what was sent to you?

9 A. Yes. As a part of the examination, we now have nice
10 digital cameras that can hook up to the microscope. So, if
11 there's something that I think would be important to
12 communicate or illustrate, I can take a picture of it and use
13 it in one way or another to present a PowerPoint presentation
14 or a blow-up or whatever it is to whomever is having to make
15 decisions about the case.

16 Q. All right. And Doctor, do you have photographs with
17 you today?

18 A. I have done that.

19 Q. Do you have them with you?

20 A. I have some disks and so forth that I have provided
21 to you. Let me get my copies out of my file. Yes. I have
22 found copies of what would be on those disks.

23 (Documents marked Defendant's Exhibit H for identification.)

24 (CD marked Defendant's Exhibit I for identification.)

25 Q. Doctor, I'm going to show you what's been identified

1 as Defendant's Exhibit I. Can you tell us what this is?

2 A. Yes. What I was doing after I took these pictures --
3 they are on a hard drive on my computer. I burned a CD or a
4 disc of the PowerPoint presentation that selected the pictures
5 I took and something called a handout, which is a proof sheet,
6 basically; put it on a disc, made two copies and gave it to
7 you.

8 Q. Now, that disc represents, which is I, represents
9 what?

10 A. These represent, as I indicated, certain elements of
11 the materials that I examined.

12 Q. Well, tell us what those are, specifically.

13 A. Pardon me?

14 Q. Would you tell us what those are?

15 A. Sure. I can't recall all of them, but there were
16 photographs of the -- one part of the imaging study, the CT
17 scan that was done on admission of this child to the hospital.
18 There was some photographs of the face of the individual and
19 then some photographs taken through a microscope of various
20 tissues of the brain, the heart, the subdural hematoma, the
21 scalp lesion and so forth, and there's an anatomic diagram in
22 there taken from an analysis of anatomy to illustrate what we
23 are talking about in terms of the nasal cavity, the orbit, the
24 sinuses and so forth.

25 MR. COFFEY: All right. I'm going to offer

1 this, Judge.

2 THE COURT: Ms. Book? For the record, that's
3 Defendant's what?

4 MR. COFFEY: I, as in Ivan.

5 MS. BOOK: May I voir dire briefly?

6 THE COURT: Sure.

7 **VOIR DIRE EXAMINATION**

8 **BY MS. BOOK:**

9 Q. These samples that you have slides of, where did they
10 come from?

11 A. The slides?

12 Q. Uh-huh.

13 A. They were conveyed to me so I would have a sample and
14 an opportunity to examine them five years ago or whatever. I
15 returned them to counsel and they were returned to me - I don't
16 know - six weeks or so ago by FedEx to my office, and I
17 examined them again there and then conveyed them back through a
18 couple of people to counsel. They appear to be there on the
19 table.

20 Q. But the original slides, where did they come from?

21 A. I guess the medical examiner. They were provided to
22 me from them.

23 Q. So, Dr. Sikirica, he made the original slides?

24 A. He had to because he had the material. I don't know
25 if he sent them to me or they came through counsel. I don't

1 remember now.

2 MS. BOOK: Thank you. No objection.

3 THE COURT: Defendant's I will be received in
4 the record at this time without objection.

5 (Defendant's Exhibit I marked for identification received in
6 evidence and marked Defendant's Exhibit I in evidence.)

7 MR. COFFEY: Judge, if I might, I would like to
8 set up the T.V. so I can have Dr. Leestma testify to them,
9 if that's okay.

10 THE COURT: That's okay.

11 MS. BOOK: May I reposition, Your Honor?

12 THE COURT: Of course.

13 Q. Doctor, we are going to try to work this so everybody
14 can see and you can operate it. For the record, we have a
15 screen, which Christa was kind enough to work for us. You are
16 sitting in the witness chair. Are you going to be able to
17 testify - I know you have a computer in front of you - to
18 what's on that screen? Can you do that?

19 A. Sure, if I can stand up and look at it.

20 Q. However is most comfortable. By the way, before you
21 do that, have you ever taught before?

22 A. Yes.

23 Q. And who have you taught?

24 A. Well, that was part of -- it's what I have done
25 pretty much my whole life as an academic pathologist,

1 neuropathologist. I was teaching medical students, dental
2 students, nursing students, residents in neurology,
3 neurosurgery, psychiatry, pathology, running clinical
4 conferences to my colleagues in the various specialties. So,
5 teaching has been, you know, integral to what I have been doing
6 pretty much my whole career.

7 Q. Have you taught pathology to medical students?

8 A. Yes.

9 Q. Is pathology, by the way, a required course in
10 medical school?

11 A. Yes. It's probably one of the big two courses that
12 happens in the second year usually. Pathology and then
13 pharmacology are the two biggies that occupy that year, and the
14 amount of material varies from school to school, but that's a
15 major course in the second year.

16 Q. And why is that? Forget pharmacology for the moment.
17 Let's talk about pathology. Why is pathology such a vital
18 course?

19 A. It tells you about disease. That's why you are a
20 doctor. All the other stuff is preparation, basically, the
21 background. Pathology is the first course that really says,
22 "Here are the diseases. You learn them." And this is how we
23 teach.

24 Q. Okay. Now, I would like you to teach the jury a
25 little bit. Would you feel better stepping down?

1 A. Yes, so I can see the screen.

2 Q. Doctor, may I --

3 THE COURT: Of course, Doctor, if I could just
4 ask you to keep your voice up nice and loud.

5 Q. Doctor, I'm going to step over here, and I know there
6 are images on the right which are kind of small. I don't know
7 if you can expand those or not.

8 A. We will bring them up.

9 Q. Okay. First of all, Doctor, these are images
10 pertaining to [REDACTED]; correct?

11 A. Yes.

12 Q. And before we start, I want to ask you: Based
13 upon -- I'm not going to ask you yet what it is. But based
14 upon your review of all the slides, did you develop an opinion,
15 based upon a reasonable degree of medical certainty, as to the
16 cause of death of [REDACTED]?

17 A. Yes.

18 MS. BOOK: Your Honor, prior to the doctor
19 testifying about his opinion, may I voir dire?

20 THE COURT: For what purpose?

21 MS. BOOK: If he's going to render an opinion, I
22 would like to voir dire him on his qualifications to give
23 his opinion.

24 THE COURT: Any objection, Mr. Coffey?

25 MR. COFFEY: No. I don't object to that now,

1 but if, later, we go back through this again, then -- I
2 have no objection one way or another, really.

3 THE COURT: Go ahead, Ms. Book.

4 MS. BOOK: Thank you, Your Honor.

5 **VOIR DIRE EXAMINATION**

6 **BY MS. BOOK:**

7 Q. I guess it's afternoon now. Good afternoon.

8 A. Hello.

9 Q. I'm Christa Book. Now, Doctor, you are not a board
10 certified forensic pathologist; correct?

11 A. No, I'm not.

12 Q. Okay. And you are also not board certified in
13 clinical pathology?

14 A. Nope.

15 Q. And you are not a board certified ophthalmologist?

16 A. Certainly not.

17 Q. So, you don't have the qualifications to look into
18 someone's eyes and diagnose them; correct?

19 A. Probably not. If I had a slide of the eye - that is,
20 a microscopic tissue slide of the tissue - I would be qualified
21 to make a diagnosis there, but clinically -- I'm not a clinical
22 practitioner. I don't see patients.

23 Q. And you are not a board certified radiologist;
24 correct?

25 A. No.

1 Q. You are not a neurosurgeon; correct?

2 A. No.

3 Q. And you are not a certified pediatrician; correct?

4 A. Certainly not.

5 Q. You have never been declared an expert in the area of
6 pediatrics; have you?

7 A. No.

8 Q. And you have not sat for the new board certification
9 in the area of child abuse pediatrics?

10 A. I'm not a pediatrician and I have not sat for that
11 examination, no.

12 Q. Okay. And you don't specialize specifically in
13 infant neuropathology; correct?

14 A. There was one time that that's basically all I did
15 when I was at the Children's Hospital in Northwestern, but I
16 don't consider that to be my -- you know, the only thing I do.

17 Q. Okay. You have never worked with a live child
18 patient; correct?

19 A. Of course, I have, medical school.

20 Q. And when was that?

21 A. 1960 to '64.

22 Q. Okay. So, would it be fair to say that the last time
23 you have worked with a live child patient would have been 50
24 years ago?

25 A. In a clinical setting, yes. I took splinters out of

1 my kids and grandkids' feet and stuff like that, but that's not
2 medical practice.

3 Q. Okay. So, aside from your own children and
4 grandchildren, the last time you have treated a live child
5 patient would have been 50 years ago?

6 A. Could be that, yes, medical school.

7 Q. And you have never worked on a trauma unit where
8 children came in after being in car accidents with head
9 injuries; have you?

10 A. They didn't have such a thing when I was in med
11 school. There was a general pediatric ward, and we did get
12 trauma patients there, along with everything else; but as such,
13 a specific trauma unit, no.

14 Q. Okay. And again, that would have been 50 years ago?

15 A. Yes.

16 Q. You have never admitted a child into a hospital?

17 A. No.

18 Q. And it's not your job to treat children, then, with
19 existing subdural hematomas; is it?

20 A. Certainly not. That's a clinician's job, and I'm not
21 one of those.

22 Q. You consult on autopsies; correct?

23 A. Oh, I do them. I consult on them. I have done both
24 sides.

25 Q. Okay. Well, now, you don't really do entire

1 autopsies anymore; do you?

2 A. Not very often. I'm pretty much retired from
3 hospital practice and institutional practice. So, it's been a
4 few years since I have done an autopsy.

5 Q. When was the last time you did an entire head-to-toe
6 autopsy?

7 A. I don't know how many years ago. It must be about
8 five years ago, six years ago now. I was on vacation in New
9 Zealand with a pathologist who was on call, and he got called
10 to do an autopsy and I helped him.

11 Q. Okay. So, the last time you did one, you assisted a
12 pathologist in doing one?

13 A. Right. We both gowned up and gloved up and did the
14 case.

15 Q. Okay. But you are not a board certified forensic
16 pathologist who has to do the entire autopsy and determine the
17 cause of death; correct?

18 A. In conjunction with, you know, whatever that means --
19 I am not a forensic pathologist and I don't do that. I do a
20 piece of it with neuropathology but not the whole thing.

21 Q. Okay. So, it's not your job to determine someone's
22 cause of death; correct?

23 A. Generally not. I could do that. I am a licensed
24 physician and I can do those things if asked to do so, but
25 generally, I do not.

(Leestma - Defendant - Voir Dire)

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1 Q. You don't generally sign death certificates?

2 A. Generally not, no.

3 Q. Could you probably count on your hands the number of
4 death certificates you have signed?

5 A. That's true.

6 Q. How many full - I mean head-to-toe - autopsies have
7 you performed during the course of your career?

8 A. A few hundred or so. I don't know exactly.

9 Q. Where you had the primary responsibility of
10 performing the head-to-toe autopsy and determining the cause of
11 death?

12 A. Yes.

13 Q. And it was to you to determine the cause of death?

14 A. Sure. That's what the pathologist's job is.

15 Q. Okay. And where was it that you did that?

16 A. It began at the University of Colorado during my
17 residency program and continued in every place I have been.
18 When I took on staff duties at Northwestern, I supervised the
19 residents who were doing autopsies, occasionally would do one
20 myself, mostly supervisory. That's what staff people do. And
21 occasionally, it would happen that I would do a full autopsy,
22 for one reason or another. When I was in practice with a large
23 group of neurosurgeons, part of my job was, if one of our
24 patients died and we had a permit, I would do the autopsy. So,
25 that would involve a few a year; and occasionally, someone

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1 would request a proper autopsy or exhumation or something like
2 that. In that case, I would do that.

3 Q. Okay. So, only a few a year would you do the entire
4 autopsy, not just the brain autopsy?

5 A. In recent years, yes, true.

6 MS. BOOK: Okay. I don't have anything further
7 right now. Thank you.

8 THE COURT: You may continue.

9 **DIRECT EXAMINATION**

10 **BY MR. COFFEY: (Continuing)**

11 Q. Do any pathologists generally admit patients to
12 hospitals?

13 A. Ask me again.

14 Q. Yes. Do pathologists of any sort generally admit
15 patients to hospitals?

16 A. Well, it would depend on the hospital. They might
17 have privileges to do something, but generally not.

18 Q. Usually the pathologists are signing him out; right?

19 A. Yeah. I suppose so, right.

20 Q. Now, with regard to what we are talking about here,
21 the brain in [REDACTED], is this within your area of
22 expertise?

23 A. Sure.

24 Q. And you have -- I said before I am not going to ask
25 your opinion. But I want to ask you this: Did you, in looking

(Leestma - Defendant - Direct)

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1 at these slides and so forth that you have testified to, did
2 you do that with a view as to determining, based upon your
3 expertise, the cause of death of [REDACTED]?

4 A. Yes.

5 Q. Okay. Are you familiar with the term sepsis?

6 A. I am.

7 Q. Are you familiar with the term subdural hematomas?

8 A. Yes.

9 Q. Subgaleal hemorrhages?

10 A. Yes.

11 Q. And a term called disseminated intravascular
12 coagulopathy?

13 A. I am.

14 Q. And I ask you that because these terms have been used
15 by us the past week. Are these terms generally used and
16 understood by pathologists and other physicians?

17 A. Yes, they are.

18 Q. Now, you have indicated that you have examined in the
19 course of your experience about 20,000 brains; correct?

20 A. Yes.

21 Q. Have you had occasion - I'm sure you have - in the
22 past to examine children's brains, infants' brains?

23 A. Sure. That would be the spectrum. That wouldn't be
24 the largest group in there, but I'm sure there would be several
25 thousand. I have never actually kept track or calculated them,

(Leestma - Defendant - Direct)

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1 but children's brains would be a part of that.

2 Q. Now, I want to ask you something else, if I can, in
3 terms of your expertise. Do pathologists such as yourself
4 publish articles?

5 A. Yes.

6 Q. I notice you have a book there. You have a book
7 right in front of you?

8 A. Yes.

9 Q. What is the name of that book?

10 A. It's called *Forensic Neuropathology, the Second*
11 *Edition*. It's a book that I authored.

12 Q. Okay. And is that utilized, as far as you know, by
13 other pathologists in the country, in the world?

14 A. It's a well-known one. There are a number of other
15 textbooks. Twenty some years ago, mine was the only one in
16 print. That was the first edition, and now there are probably
17 four, five or six competing ones in different ways.

18 Q. And articles -- have you written articles over the
19 years?

20 A. Right.

21 Q. What's your best estimate as to how many?

22 A. I guess, if you add the books and so forth, I think
23 it's 104 or five or six now publications.

24 Q. Now, these articles, just so we can understand, these
25 are articles written for people, say, like me, general public,

1 or are they written for people in your field? I know I could
2 get a hold of it. But who are they written for?

3 A. The general public isn't the target for these. These
4 would be the medical journals, professional journals, like
5 *Journal of the American Medical Association* or *Neuropathology*
6 *Journal* or whatever, and it is targeted to the professionals in
7 my area.

8 Q. Do you ever have to lecture on your articles?

9 A. Did I ever what?

10 Q. Lecture with regard to these articles and your
11 findings?

12 A. I'm sorry. I still missed the first part.

13 Q. Have you ever lectured?

14 A. Yes, sure.

15 Q. So, at a lecture, of course, someone could stand up
16 and say, "Dr. Leestma, you are crazy. I think your article is
17 nutty." Right?

18 A. Yes, they can.

19 Q. Those articles are widely available to the medical
20 profession?

21 A. They are.

22 Q. Okay. Come on down, if you would again.

23 THE COURT: That's fine, Doctor.

24 A. This is a screen that is unfamiliar to me, but okay.

25 Q. Now, Doctor, before we do anything, I want to ask you

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1 if you are aware of the fact that [REDACTED] - and I want
2 you to assume - was born in May of 2008?

3 A. Yes. That is my recollection.

4 Q. Are you aware of any risk factors that his mother
5 had?

6 A. Yes.

7 Q. And what were you --

8 A. The mother was very heavy and there were twins, and
9 there was some difficulties with the deliveries with the twins.
10 I don't recall what all of them were, but it necessitated some
11 hospitalization after birth. I think there was premature
12 separation of the membrane, breaking of the water, and some
13 questions about pre-toxemia. So, there were a bunch of factors
14 that were going around the birth of these two boys.

15 Q. Doctor, I want you to assume that [REDACTED] and his
16 twin were born at 33 weeks gestation.

17 A. Yes, and that's early. That's -- 40 weeks is normal,
18 so that's quite a bit early.

19 Q. Okay. Now, having said that, would you tell me if
20 the -- [REDACTED] -- not [REDACTED] I'm not interested in [REDACTED]
21 for these purposes. Whether [REDACTED] would be at any risk in
22 terms of his brain having been born -- with those factors and
23 premature?

24 A. Yes.

25 Q. And what would those be?

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1 A. You can't assign that absolutely to children that are
2 born like that. But the kinds of things that they are
3 vulnerable to and err to involve bleeding in the brain.
4 There's a much higher incidence of subdural hematoma and
5 bleeding in the brain associated with births like that. There
6 can be infections that occur because of the premature rupture
7 of the membranes. The immaturity of the babies always makes
8 them vulnerable to not getting enough oxygen and blood supply
9 to their brain, so they could have brain injuries from that.
10 There's a whole legacy of things that can be there. Many of
11 these children end up with what's known as cerebral palsy,
12 brain damage that renders them, obviously, not normal and may
13 kill them. So, there's a bunch of risk factors there that
14 ██████ was exposed to.

15 Q. Is that generally understood in the medical
16 community?

17 A. Say again.

18 Q. I'm sorry. Is that generally understood in the
19 medical community?

20 A. Sure. There are many, many articles, studies written
21 about these kinds of things; that these are well-known risk
22 factors.

23 Q. Have you examined brains? I don't mean to raise my
24 voice. I guess I trail off a little bit. Have you examined
25 brains of newborns or children who are premature with regard to

1 subdural bleeding?

2 A. Yes.

3 Q. And the dura is what?

4 A. These are often children that did not survive or
5 became ill later and died, and the aging and dating of these
6 processes put it back to the time of birth, and there are
7 imaging studies that clearly demonstrate that. This is not an
8 uncommon problem.

9 Q. Okay. What is a dura?

10 A. A dura -- let's start from the outside, go from the
11 scalp, where the hair is. If I cut through that, the next
12 thing I'm going to hit is the skull. If I go through that, the
13 next thing I'm going to see is the dura, which is a
14 parchment-like membrane that embraces the side of the skull and
15 goes down the spinal canal.

16 Q. Okay. Doctor, we know that [REDACTED] was admitted to
17 Seton Health, I think, 10 to 13 days after his birth, and there
18 was an ultrasound apparently taken at that time. And then,
19 Doctor, subsequently, we know that [REDACTED] died; correct?

20 A. Correct.

21 Q. Now, in looking at the tissues of his autopsy and so
22 forth that you have indicated, are you able to come to a
23 determination whether [REDACTED] at any time had subdural bleeds
24 in his brain?

25 A. Yes.

1 Q. Okay. And can you date -- first of all, are you able
2 to date any of them?

3 A. Yes. It is possible to make some estimates of the
4 aging and dating of subdurals.

5 Q. Can you show us?

6 A. If we proceed on, it would be after this
7 particular --

8 Q. Go right ahead. Doctor, so tell us what we are
9 looking at.

10 A. Okay. What we are looking at is the admitting CT
11 scan.

12 Q. All right. Admitting of what?

13 A. When the child was admitted to the hospital. This is
14 an x-ray, computerized x-ray image of this child's head and
15 brain.

16 Q. At Samaritan Hospital or --

17 A. I don't remember which hospital it would be; I think
18 the first hospital the child was at.

19 Q. Go ahead, Doctor.

20 A. What we have here is what are essentially -- this
21 would be like taking a bandsaw and making -- or a salami
22 slicer, whatever, and making slices from the top of the head
23 down. And what we see here is this outer rim of white. That's
24 the skull. Underneath that, here's the brain with my pointer
25 on it, and these images are reversed from left to right. The

1 radiologists do that. I don't know why, but the left side is
2 the right side of the head; the right side is the left side.
3 What we see is the brain, but over this brain, between the
4 skull and the brain itself, is a gray space. That should not
5 be there. Some of it should be there. And what this is is
6 fluid. And it's not completely black like the images, the next
7 image here, which would be cerebrospinal fluid, which is
8 watery. This means there has to be a little bit of blood
9 pigment, residual fluid, blood in this fluid and in some
10 places -- you will notice on this right side over here, it's a
11 little grayer than it is on this other side, which means that
12 this is probably more watery, would probably look like
13 straw-colored fluid or urine. On the other side, there's
14 probably some blood mixed in with it, but there's not a lot of
15 acute blood there.

16 Q. What does acute blood mean?

17 A. That is bleeding right now. You know, if this were
18 all blood, then it would look like foam. It would be white,
19 and it isn't. So, what we have here is fluid collections over
20 this brain, some of which has probably some blood elements in
21 it, and this is really quite abnormal.

22 Now, one of the things we see here -- see these gaps
23 in the white skull back there? Those are the sutures where the
24 skull bones come together. They are obviously split, and that
25 would correlate with the head circumference that this child had

1 on admission, which was way off the paper in terms of average,
2 46 centimeters. The normal should be 41. So, this is reality.

3 Then the next cut would be down a bit lower, and we
4 see the ventricles of the brain, which is where the
5 cerebrospinal fluid is produced. We have a membrane between
6 the two hemispheres called the falx, F-A-L-X, and it has some
7 blood density on it as white; and back here at the back of the
8 brain on the right side is some blood density. So, there may
9 be some blood there; not much, but some. So, what we see is a
10 chronic fluid collection.

11 Q. What does chronic mean?

12 A. It means that maybe, at one time, this was blood, but
13 the blood is gone now. It's replaced by fluid, and fluid comes
14 from what's left after the blood elements are gone or just
15 fluid leaking from the brain itself or the surface of the dura.
16 So, it's liquid. It's watery. It's not blood.

17 Q. Okay.

18 A. And this is abnormal. It means that this child had
19 had this for some time, probably months, weeks.

20 Q. Had what for some time?

21 A. These fluid collections over the brain.

22 Q. And has had them for how long?

23 A. Many weeks, probably. It could be back to birth. I
24 can't accurately age and date these using this particular
25 study. When I get to the autopsy, now we have better tissue

1 and I can look at and give some ages and date of that.

2 Q. Go ahead, then.

3 A. Let me see if I can advance this way. Taking it from
4 the inside out now -- this is an autopsy photograph of the top
5 of [REDACTED]'s head. The scalp has been peeled forward, and
6 there clearly is some bloody material in the soft tissues of
7 the scalp that are reflected, and all of that is reflected on
8 the skull. I think more importantly, though, we can look and
9 see that the tissues are yellow. That has the meaning that,
10 probably, there was blood there; just like a bruise, it turns
11 yellow eventually after a week or two, which means there was
12 bleeding there some time ago, and there may be some more recent
13 bleeding attached to that, so that there's some bleeding in the
14 scalp before. The residue of that is this yellow material,
15 blood pigment. And then there's something that's probably more
16 recent, but in terms of trying to age and date that with your
17 naked eye, we are not very accurate about that.

18 Q. Okay. Go ahead.

19 A. Okay.

20 Q. Everybody knows what this is.

21 A. Of course. This is a piece of tissue that was taken
22 from somewhere in this frontal area underneath the scalp, and
23 it represents the soft tissues of some of this discolored
24 material that's there. Right down here in the lower right-hand
25 corner is a blood vessel with some red blood cells in it,

1 normal. Actually, the vessel is bigger and so forth than
2 normally you would see, but all of these blue dots and
3 everything, these are inflammatory cells of different kinds;
4 chronic ones that take a week or more to get there, and some
5 that get there and begin doing something within a day or so.
6 But this is well-developed and --

7 Q. What does that mean, well-developed?

8 A. Meaning that this isn't the beginning of a process.
9 It's well along; I would guess four, five days, maybe more.

10 Q. What does that mean?

11 A. It means that something is going on here, and the
12 normal subgaleal hemorrhage doesn't have these inflammatory --
13 they have some, but not like this. This immediately suggests
14 infection, and bacterial infection at that.

15 Q. Why?

16 A. Bacteria emits sort of chemicals and toxins when they
17 get into the tissues and that draws the cells there to gobble
18 them up and get rid of them.

19 Q. Called microphages?

20 A. There will be microphages and scavenger cells, as
21 well as several other kinds of chronic and acute inflammatory
22 cells there.

23 Q. Okay.

24 A. So, it tells us we have something going on besides
25 simply the hemorrhage in the soft tissue. It's infected, most

1 likely. The next thing we see is a photograph taken in the
2 hospital while the child still had all of the tubes and pipes
3 and so forth in. The thing that I want to point out is, number
4 one, there is really no obvious bruise or external injury in
5 the skin, and these eyes are very, very puffy. The meaning of
6 this potentially, and I think will become clear as we move
7 on --

8 Q. All right.

9 A. This suggests, perhaps, there had been clotting; so,
10 the venous drainage from the eyes and the eye area, so that
11 they puff out, and also - that will become clearer in a
12 moment - there well may be an infection in those tissues around
13 the eye, which is, in fact, the case.

14 Just to put things in some sort of anatomic
15 perspective, if I were to take a slice, sort of, before my ears
16 and basically take my face off and look into the structures
17 there, these holes here would be the orifice. That's where the
18 eyes are, the eyeballs are, and the holes in the back are where
19 the optic nerve would go back into the brain. The brain would
20 be sitting up here in the frontal fossa. All these other holes
21 here, like this one, the maxillary sinus -- that's the sinus
22 underneath your eye and over your upper jaw. There's the
23 others, ethmoid sinuses and so forth; the point being here is
24 the paranasal sinuses are a membrane away from the orbital
25 contact, very thin bone between them. The importance of that

1 is if one has an infection, if you have an infection in here,
2 it's not uncommon for this tiny barrier to be reached and for
3 infection to spread out away from the sinuses. That's one of
4 the dangers of sinus infection.

5 Q. And where does it go?

6 A. Into the orbit.

7 Q. Orbit, meaning the eye?

8 A. Into the orbital tissues, the soft tissue around the
9 eyeball. It could also go into the brain cavity itself and
10 lead to meningitis. And, so, these are the cards you don't
11 want to turn over if you have a sinus infection and hope that
12 you can get on it before it goes that way.

13 So, this shows you that the sinus is not way off here
14 someplace away from the eyeball. It's a membrane away. These
15 are tissue slides taken from the contents of one of the
16 orbits - I don't remember which - of the eye and optic nerve in
17 that. Anyway, what we see here is a pocket of necrotic dead
18 tissue, and these bluish smudges are probably bacterial
19 colonies, clumps of blood. Surrounding that is all kinds of
20 inflammatory reaction and cells, kind of like what I was
21 showing you before in the subgaleal region.

22 Q. Doctor, hold on a second, please.

23 TRIAL JUROR: It's hard to see. Could we try to
24 maximize the image, please?

25 MR. COFFEY: It's hard to see. Let me see if I

1 can do this.

2 Q. Doctor, maybe you can stand over here.

3 A. I'm trying to get the picture back to where I want
4 it.

5 Q. Let me ask you if I can -- can everybody see it now?
6 Okay. We are in better shape. Okay, Doctor.

7 A. Okay. This arrow which I put on there, all of this
8 kind of indistinct stuff that looks like strings and some pink
9 and all of that, this is death tissue. Whatever was there has
10 died, been killed by bacteria, and these bluish marks and so
11 forth, as I indicated, are colonies of bacteria; and around the
12 edge of it, all of these cells and dilated blood vessels
13 represent the reaction to this infection.

14 Now, what's the infection? It's not a virus. Virus
15 doesn't do that. What we did was -- let me get over here.
16 What we did here is performed at the request -- I didn't do it.
17 I requested it, and the lab did it; so-called Gram stains,
18 G-R-A-M, on this tissue. This is a chemical reaction using a
19 variety of dyes that stains bacteria. There are Gram-positive
20 and Gram-negative. These are Gram-positive, and all these
21 little dots here -- well, the arrow doesn't really highlight
22 it; but all these little dots are bacteria, and many of them
23 seem to be two peas in a pod, and that's a characteristic for
24 so-called streptococcus pneumoniae or strep bacilli, which is a
25 very common cause of pneumonia and upper respiratory infection.

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1 Q. Have you seen streptococcus pneumoniae in the past in
2 your 20,000 brains you have examined?

3 A. Yup. It's not uncommon. It's a very common cause of
4 upper respiratory infections, pneumonia, meningitis in children
5 and adults, too. So, the idea that this is an infection, yup.
6 What's causing it? Gram-positive bacteria streptococcus. Now,
7 that's a nice observation. But what other observations do we
8 have that nail that down? The child had positive blood
9 culture. There was bacteria in his blood. I don't know what
10 more you need, really, to nail down the concept of blood
11 poisoning or sepsis. That's what this particular blood is.
12 This child has what we call orbital cellulitis, which is a
13 life-threatening, serious, very serious problem and there it
14 is.

15 Q. Okay.

16 A. Okay. This got me back unwillingly to the scalp
17 slide. But you can clearly see, there's all kinds of different
18 cells. Some have pigment and material in them, and that's what
19 they do; they gobble up -- there was a Gram stain on this. I
20 just didn't photograph it, and there's the same bugs in there.

21 Q. Tell us about that, Doctor.

22 A. This is a slide taken of a portion of the subdural
23 hematoma. Now, in the autopsy, it was described as a liquid
24 portion that was in there, basically, fallen down into the back
25 of the open skull because of gravity, and then there was some

1 thickened areas that were sampled by Dr. Sikirica. And what we
2 have here is -- this reminds me of one of those cakes, a black
3 forest cake or whatever it is, where there's layer, upon layer,
4 upon layer of reaction there. The topmost layer, if we
5 magnified that, that would be dead blood cells, dead pus,
6 bacterial colonies and things like that in there, but beyond
7 that -- I don't know how many layers we got here; five, six,
8 seven. It indicates that there must have been multiple kinds
9 of bleeding in this child's dura, because the way it works,
10 blood doesn't -- when it gets to the so-called subdural space,
11 the body does a strange reaction. It goes no place else. That
12 occurs no place else in the body, and the blood gets walled off
13 and, hopefully, turns into kind of a pancake that then can be
14 processed and the blood gotten rid of.

15 And then if there's rebleeding -- which comes from
16 these little tiny capillaries that are very delicate there in
17 response to nothing. It isn't trauma. It could be
18 coagulopathy. It could be just the natural history of the
19 subdural. So, it starts all over again. So, you end up with a
20 new layer and that's partially healed and then some more
21 bleeding occurred, and that's how subdurals increase in size
22 over the years. This has been known for a hundred years.

23 Q. And can you tell us -- can you date the subdural, say
24 the first one? I know there's six or seven. But can you date
25 the time periods of these?

1 A. Well, if you pick one layer -- there is a scheme that
2 was developed - published in 1936 - subdurals whose age was
3 known. And then they said, well, what's in them under the
4 microscope, and then they created a kind of algorithm, I guess,
5 for saying, "If these things are present, this is how old it
6 is." Well, to age something like this, you have, obviously,
7 the process starting over and over and over again. The best
8 estimate I have is -- this child is only four and a half, five
9 months old. It could very well go back to birth.

10 Q. Are these consistent with trauma?

11 A. Who knows what starts these things? First, if they
12 are birth related, that's trauma. A birth is traumatic. A lot
13 of children, especially those with the risk factors we talked
14 about, have a greater likelihood of subdural bleeding; but
15 then, over time, may evolve into something like this. This is
16 about the most spectacular layer of subdural that I think I
17 have seen.

18 Q. Okay. Doctor, if a child starts to bleed at birth or
19 right after birth from a traumatic event, are they now more
20 susceptible to rebleed?

21 A. Of course.

22 Q. Have you seen that in your experience?

23 A. Absolutely. That's the mechanism -- there was a lot
24 of argument argument; why, if you have a chronic subdural that
25 you know is months old or maybe even older, how come there is

1 recent blood? And the theory is, that has been pretty well
2 proven now, that these little capillaries are weak and they may
3 just be spontaneously kind of starting the whole process over
4 and over again.

5 Q. Now, can a baby who has this kind of bleed and
6 rebleed act normally and seem okay?

7 A. Yes. It's part of the natural history of subdural
8 and chronic subdurals to rebleed, and mostly a little,
9 sometimes a lot; but I think importantly on this particular
10 child who has got all of this, but on the surface here, is
11 infected, too. So, this gives you infection in the scalp,
12 infection in the orbit, infection in the subdural hematoma and
13 who knows where else.

14 Q. Can infection cause a bleed?

15 A. Sure.

16 Q. Why?

17 A. The toxins in the bacteria will attack some of these
18 small blood vessels causing them to clot and then maybe burst.
19 So, bleeding can be part of that. And another part of it is
20 coagulopathy; that is, if somebody is septic, then your
21 coagulation can be all screwed up.

22 Q. Now, in this case, [REDACTED], when he presented to
23 Samaritan Hospital and then Albany Medical Center, do you have
24 an opinion -- and all of these opinions are based upon a
25 reasonable degree of medical certainty.

1 A. I understand that.

2 Q. Whether he was septic at that time?

3 A. He probably was.

4 Q. Was he septic in the hospital, Albany Medical Center?

5 A. Yes.

6 Q. And can sepsis cause a disseminated intravascular
7 coagulopathy?

8 A. Yes.

9 Q. And did he have a DIC?

10 A. I believe he did.

11 Q. Doctor, do you have another slide you need to look
12 at?

13 A. So, here we have something that tells us this is not
14 a brand-new process. In fact, the amount of acute bleeding in
15 here, we saw from the scan, is very little. So, this has been
16 around for a while.

17 Some other slides showing surface of the cerebral
18 cortex and brain. These are veins, small veins. They are all
19 very dilated. And some of them, if you look at them -- I know
20 you can't get this. But there was a vein here somewhere, and
21 it's full of blood flow. So, there has been DIC. There has
22 been clotting in the cerebral veins, which is a scary thing
23 because blood can get into a part of the brain but it can't get
24 out. So, it may burst out and produce cerebral edema and a
25 whole bunch of other --

1 Q. Cerebral edema is what?

2 A. Brain swelling from water that is migrating out.

3 Q. And this baby had cerebral edema?

4 A. Yes.

5 Q. Are there any slides that -- we don't need to see the
6 same. Is there anything different in any of these slides? Do
7 you have any slides that will show anything different in terms
8 of your opinion here?

9 A. No. This is a very, very sick kid with a septic
10 problem, all of the problems that associate with that, and
11 there you are.

12 Q. Have you completed your slides?

13 A. Let me go ahead and see where we are next. Here's
14 just another vessel. This is -- let me get my pointer back.
15 Here we are. This pink stuff up here is what brain looks like.
16 It's not very exciting. The pink, these bubbles and holes, are
17 cerebral edema, water. This is a small vein or capillary, and
18 it contains a clot that's been there for a few days. So, the
19 clotting dysfunction has been going on since this child was in
20 the hospital and just represents kind of the hidden story of it
21 all.

22 Let me see if there's something else. Yes. This is
23 the slide of the lung.

24 Q. Okay.

25 A. So, you might say, where is all the air? The lungs

1 collapsed, either because of difficulty with ventilation or
2 machine or whatever it is. All of these clear spaces should be
3 big things. This should look like a sponge. Air should be in
4 there and it's not. So, this poor kid is having trouble in his
5 airways and, more importantly, yes, there are some inflammatory
6 cells scattered through here, but this is not rip-roaring
7 pneumonia. It's not a raging pneumonia. It's not a lung
8 abscess.

9 So, this lung is representing kind of what a dying
10 lung or dying patient's lungs look like. And the importance
11 being here, wherever the septic process was -- I don't doubt
12 that we could get recovered bacteria from there if we wanted
13 to, but that isn't the main focus of where the problem is.

14 There's a principle in pathology that you might say,
15 "Where did this tumor begin?" Well, you go where the tumor is
16 the biggest. That's probably where it began.

17 Q. Where is it biggest?

18 A. And where is it biggest in this kid? The orbit, the
19 deep cranial tissues. That's where the main infectious process
20 is.

21 Q. How did it get to the orbit?

22 A. From probably a sinus infection, upper respiratory
23 infection.

24 Q. And how did it get to the sinus?

25 A. The sinuses communicate directly to the nasal cavity

1 through little tubes and pipes; and when there's bugs there, it
2 will get into the sinuses.

3 Q. Meaning breathing in?

4 A. Breathing in or just part of the normal thing.
5 Sometimes you get a cold and then you get a sinus infection
6 after that.

7 Q. Okay. Doctor, anything else on the slides?

8 A. Yes. Another point I want to make about this.
9 There's a question about aspiration in this case. Aspiration
10 affects the lung in a --

11 Q. What is aspiration?

12 A. Inhaling of things into your lungs and bronchi that
13 shouldn't be there. It could be food. It could be vomitus.
14 It could be something else. If you inhale vomitus, that has
15 got hydrochloric acid in it from your stomach. When that hits
16 the lung, it turns the lung to liquid. It makes it bloody and
17 turns it into something that looks look hamburger almost, and
18 I'm not able to see that here.

19 So, did aspiration occur? Could have, in a minor
20 way. But in terms of classic aspiration pneumonia, this child
21 does not have that.

22 Q. Okay.

23 A. Then we came to the heart, which was a little bit of
24 a surprise. These areas around the edge here are heart muscle.
25 This thing in the center is a scar. Something killed some

1 areas of this child's heart, and it could have been an episode
2 of DIC at some time in the past, a clot or something. Who
3 knows what it is? But that's taken some weeks to get there.
4 So, something was going on with this child before that.

5 And the last slide -- I think it's the last slide.
6 This is heart muscle itself, red blood cells. You can see
7 those. There's some nuclei from the muscle cell, but some of
8 these, you can see that they are pulled apart. The muscle
9 fibers are torn apart. So, this child had some failure of
10 blood flow and oxygen going through his heart in the last day
11 or so of his life. This probably wasn't present when the child
12 was admitted to the hospital. This is part of the dying
13 process. So, that is what I've got.

14 MR. COFFEY: Judge, if I might. I think I may
15 only have about 10 minutes left, if you want to take a
16 lunch break. I know we have a time factor here.

17 THE COURT: We are supposed to stop by one
18 o'clock for lunch. Do you think you can be done within
19 the next ten minutes or so?

20 MR. COFFEY: That's my guess. I mean, it might
21 be helpful if I have a lunch break. I may be able to
22 coordinate. Mr. Frost can tell me what I should ask, and
23 then I can cut it down. I may be able to trim it if I
24 can.

25 THE COURT: We will take a lunch break now.

1 Members of the jury, it is five of one. So, we will break
2 for lunch at this time. We will break until two o'clock.
3 During the course of this break, please do not discuss the
4 case among yourselves or with anyone else. Do not read,
5 view or listen to any media accounts of this case. Do not
6 visit or view any premises mentioned during this trial.
7 Do not conduct any research about this case. Do not
8 request or accept any payment in return for supplying any
9 information. Do not form any judgments or opinions about
10 this case. And if anyone attempts to improperly influence
11 you, please report that directly to me. Hope you all
12 enjoy your lunch. We will see you back here at two
13 o'clock.

14 (Jury excused.)

15 THE COURT: Doctor, because you are still giving
16 sworn testimony in this case, I'm going to ask that,
17 during the course of this break, please do not discuss
18 this case or your testimony with anybody, and that
19 includes the attorneys involved in this case. Okay?

20 THE WITNESS: Okay.

21 THE COURT: See you back here at two o'clock.
22 Thank you.

23 (Whereupon, a luncheon recess was taken.)

24 THE COURT: Please be seated. Dr. Leestma, can
25 you retake the witness stand, please? Bring the jury back

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1 in, please.

2 COURT OFFICER: All rise. Jury entering.

3 THE COURT: Please be seated. The sworn witness
4 remains Jan Leestma. Doctor, I will remind you that you
5 are still under oath. Mr. Coffey, you may proceed.

6 MR. COFFEY: Thank you, Judge.

7 Q. Doctor --

8 A. Yes.

9 Q. I want to ask you -- and I'm not going to go back to
10 the slides. You have done that, and we appreciate that. Tell
11 me: Do you have an opinion, based upon a reasonable degree of
12 medical certainty - I'm not going to repeat that phrase in
13 every sentence but - as to this baby's cause of death?

14 A. Yes.

15 Q. And what is that opinion?

16 A. The baby died from the effects of bacterial sepsis
17 from shock.

18 Q. Dr. Sikirica, who was in the courtroom, indicated
19 that, in his opinion, [REDACTED] died from a subdural or from
20 trauma. Do you agree with that?

21 A. A contributing cause. There clearly was a subdural
22 fluid collection which imposed some stress on the brain. And I
23 guess when we are listing something in a death certificate or a
24 report, we would put bacterial sepsis and so forth first, and
25 contributing cause would be intracranial pressure due to the

1 subdural fluid collection.

2 Q. Well, Dr. Sikirica opined that to have trauma you
3 then have aspiration. Did you find any evidence of aspiration
4 in this case?

5 A. There's photographs of some mucoid material in the
6 upper airway. In terms of the slides of the lung, I was
7 unconvinced that the classic pictures were there, no.

8 Q. Classic pictures were there or were not there?

9 A. Were not.

10 Q. Okay. Now, Doctor, what about the subgaleal
11 hemorrhage? What does that indicate to you?

12 A. That raises, perhaps, more questions than is
13 answered. The appearance in the gross indicates that there may
14 have been bleeding in that area before because of the yellow
15 discoloration in the soft tissues of the deep scalp. The
16 visual inspection doesn't help you very much, because
17 estimating age and dating by the naked eye is probably not very
18 accurate. The microscopic, however, clearly shows that this
19 lesion has been there for some time, four or five days maybe,
20 as evidenced by the chronic inflammation and healing reactions
21 that are going on there. And then, of course, we have the
22 bacterial infection that is affecting that subgaleal
23 hemorrhage. So, this raises all sorts of issues of how can I
24 tell how that got there, what is the mechanism of it and so
25 forth, and that becomes very difficult to sort out.

1 Q. Well, do you have an opinion or -- do you have an
2 opinion that no one can have that opinion as to how it got
3 there?

4 A. Not a firm one. I mean, the issue is there was an
5 apparent fall some days before admission. That certainly could
6 explain why there would be a bruise in that area. Beyond that,
7 certainly, some impact would be a candidate for --

8 Q. A candidate. But is that the only candidate? That's
9 my question.

10 A. No, it's not.

11 Q. What are the other candidates?

12 A. That there was a prior injury there and that the
13 subsequent medical condition, sepsis and so forth,
14 coagulopathy, contributed to the hemorrhage that's there. In
15 terms of sorting out precisely what the cause is, I can't do
16 it.

17 Q. Now, Doctor, do you have an opinion as to whether --
18 if, in fact, [REDACTED] fell on the floor at 17 inches --

19 A. Yes.

20 Q. -- would that cause that kind of damage?

21 A. Yes.

22 Q. Now, Doctor, would that cause the massive bleeding
23 that you saw?

24 A. I'm not sure if there was massive bleeding there.
25 There is a case report, an interesting one, one witness, a

1 young child that fell backward - maybe an eight-month-old - I
2 think trying to pull himself up on a couch or to walk and fell
3 backwards, and the child had known fluid collections over the
4 brain, very similar to what [REDACTED] had, and the kid fell back
5 18 inches maybe to the back of the head, caused bleeding in
6 that fluid collection, fluid -- the increased intracranial
7 pressure and retinal hemorrhages. The child survived, but it
8 shows you the sort of relatively minor circumstances or events
9 in somebody who's already has problems; you know, can magnify
10 them.

11 Q. Well, could this subgaleal hemorrhage be caused by a
12 very minor impact if the child -- for example, theoretically
13 hitting his head on the crib or whatever?

14 A. Yes.

15 Q. Do you have an opinion?

16 A. Yes. We know for sure, I think, beyond reason that a
17 young child that has fluid collections like this, the injury
18 threshold for something later is lesser. Precisely how much, I
19 don't think we know; but this one case report certainly
20 illustrates what can happen sometimes and that may be in play
21 here.

22 Q. It may. What does that mean, it may?

23 A. Maybe.

24 Q. Can anyone testify, in your opinion, with a
25 reasonable degree of medical certainty whether it did?

1 A. If we know of that event and can, you know, nail it
2 down that it really happened, then I think it's more likely
3 than not that that was contributory; but in terms of absolutely
4 certain, there's no way I can know that.

5 Q. But in terms of contributory, my question to you is
6 this: The cause of death of this baby, was it trauma or was it
7 sepsis?

8 A. Sepsis.

9 Q. Okay. Is there any question in your mind?

10 A. No.

11 Q. And DIC -- we have heard Dr. Sikirica say there was
12 60 milliliters of blood taken out of this baby's brain.

13 A. I heard that testimony. I'm aware of that in the
14 report, too. I have to question 60 milliliters of blood. The
15 last pictures we had of this child's brain and head was in the
16 CT scan, and there was essentially no blood there. There was
17 fluid with some blood-tinged material in it. If there was 60
18 milliliters of blood in this child's head at autopsy, it came
19 during the hospitalization, not before. So, I suspect that
20 this is probably fluid, watery fluid mixed with some blood that
21 spilled during the autopsy procedure and/or occurred while the
22 child was hospitalized, and DIC would be a good explanation for
23 why.

24 Q. And Doctor, you told us what meningitis is. In your
25 opinion, did this baby suffer from meningitis?

1 A. Yes.

2 Q. And what problems can that cause?

3 A. This is part of the whole picture. Meningitis can
4 lead to blood coagulation problems, thrombosis or clotting of
5 vessels inside the head, cerebral edema, seizures, all kinds of
6 things, increased intracranial pressure. It is not a benign
7 condition.

8 MR. COFFEY: Okay. One minute, if I might.

9 Q. What are the effects of heparin, Doctor?

10 A. What is what?

11 Q. What are the effects of heparin?

12 A. Heparin is, first of all, a drug that is given to, in
13 a sense, thin the blood, and it disrupts the clotting
14 mechanism. I don't remember exactly what part of the cascade
15 it intersects, but it does thin the blood.

16 Q. Which means what?

17 A. Meaning it can be used for a variety of reasons. If
18 you have clotting inside the vessels, heparin could be used for
19 that. If you are preparing, essentially, a body for organ
20 donation, heparin is often used to prevent clotting and damage
21 to the organs that you want to transplant. So, it thins the
22 blood and can cause bleeding.

23 Q. Doctor, do you have an opinion, based upon a
24 reasonable degree of medical certainty - or do you agree with
25 Dr. Sikirica or any other people called by the District

1 Attorney's Office - whether trauma was the cause of this baby's
2 death? Do you have an opinion?

3 A. I would say --

4 MS. BOOK: Objection. This has been asked and
5 answered, Your Honor.

6 THE COURT: Overruled.

7 Q. Do you have an opinion?

8 A. Did trauma cause the death of this baby? I would say
9 no.

10 MR. COFFEY: Thank you. That's all I have.

11 THE COURT: Ms. Book?

12 MS. BOOK: Thank you, Your Honor.

13 **CROSS-EXAMINATION**

14 **BY MS. BOOK:**

15 Q. Hello again.

16 A. Hi.

17 Q. Doctor, do you agree with the statement "Trauma does
18 not cause sepsis"?

19 A. I would not necessarily agree with that. I would say
20 that it probably does not in the majority of cases. It can,
21 but not usually.

22 Q. And how can trauma cause sepsis?

23 A. Well, we have to be a little more specific on what
24 kind of trauma. If someone takes an impact blow, kick to the
25 abdomen and ruptures an internal organ, the gut or something,

1 sure, you can get sepsis from that. Deep skeletal injury or
2 muscular injury, sepsis may occur as a secondary or tertiary
3 complication of that. Head injury, generally not, unless you
4 have a fracture through a sinus or something and then you spill
5 contaminated material into the intracranial compartment. There
6 are certainly some conditions in which trauma can produce
7 sepsis but, generally, that would be regarded as down the road
8 apiece because of something else.

9 Q. Okay. But as a general statement, you do agree that
10 trauma can cause sepsis?

11 A. Yes.

12 Q. Okay. And if Dr. Klein, who testified, said that
13 trauma cannot, in any circumstances, lead to sepsis, do you
14 disagree with that statement?

15 A. If that is what was said, I do.

16 Q. Okay. Now, for a moment, let's talk about you
17 testifying as an expert witness. Okay?

18 A. Okay.

19 Q. How much of your income comes from case review and
20 possibly ultimately testifying?

21 A. Probably these days - I don't know - 10 percent, 20
22 percent maybe.

23 Q. Okay. Taking aside your -- taking your retirement
24 and such out of the equation, just your active income from
25 practicing medicine these days. How much of that income comes

1 from reviewing cases and testifying as an expert?

2 A. Virtually all of my earned income -- there were a few
3 little other consulting things, matters such as this and so
4 forth. It depends from year to year. It might end up to be 10
5 percent, 20 percent of my total income. Last year, I lost
6 money. I made no money. So, it depends on many things.

7 Q. Okay. I'm saying if you take out of the equation
8 your retirements and investment and things like that and we are
9 just simply talking about how you earn new money. How much of
10 that comes from testifying?

11 A. Virtually -- not testifying, but consulting on
12 cases - it may culminate in testimony - that's the -- that
13 would be the source of my earned income.

14 Q. So, that's the entirety of your earned income these
15 days?

16 A. Sure.

17 Q. How many trials have you testified so far in this
18 year?

19 A. Let's see. I could be wrong; maybe four, five.

20 Q. Okay. And how many of those were for the
21 prosecution?

22 A. Um, one of them was. The others were for defense --
23 let me see. I think one was a civil case and then two or three
24 criminal cases. Those were for the defense.

25 Q. Okay. So, in the civil case, you mean you testified

1 for the plaintiff?

2 A. I'm trying to remember what it was. I frankly don't
3 remember. I don't know. It breaks about 50/50 in the civil
4 cases, plaintiff versus defense. I just don't remember now.

5 Q. Okay. I'm talking about in the criminal cases.

6 A. Right.

7 Q. How many times this year have you testified for, say,
8 the People of the State of New York?

9 A. Okay. Let's say of the three or four criminal cases
10 that I have been involved with this year, one of them was for
11 prosecution. The rest would have been for defense.

12 Q. In a criminal case, you testified for the
13 prosecution?

14 A. Yes.

15 Q. And how many times did you testify for the
16 prosecution in 2013?

17 A. Let's see. I had a couple of cases. I don't think I
18 testified, actually. I think they were settled or pled out or
19 did something, but I was retained by the prosecutor on two
20 cases.

21 Q. Okay. And back in 2009, it was no times for the
22 prosecution; right?

23 A. That's probably true, yes.

24 Q. And in 2008, it was no times for the prosecution;
25 correct?

1 A. I think that's right, too.

2 Q. 2007, it was no times for the prosecution; correct?

3 A. Now we get to where my memory fades a little bit.
4 Somewhere in there, I had a prosecution trial and testimony.

5 Q. Okay.

6 A. One.

7 Q. Somewhere in those years, you had one time that you
8 testified for the prosecution?

9 A. Yeah, I think so. I'm not sure if it was '07. I
10 testified in San Diego.

11 Q. Okay. Well, if I told you that you previously
12 testified that you testified for the prosecution no times in
13 2007, would you believe --

14 A. You may be right. I don't have my list in front of
15 me.

16 Q. Okay. Not only do you principally testify for
17 defendants -- would you agree with that?

18 A. In criminal matters, yes, that's true.

19 Q. But you testify assisting criminal defendants or
20 children -- or people whose children might be taken because of
21 allegations of child abuse; correct?

22 A. That's true.

23 Q. Now, how much do you charge an hour to prepare for a
24 trial?

25 A. That totally depends. It usually works out to about

1 350 an hour or less, depending on who is hiring me. They may
2 have limits, government stipulated limits, or there are others
3 that don't. So, it will vary anywhere from four, \$500 an hour
4 to 250 or nothing. It depends.

5 Q. And how much an hour for testimony?

6 A. In recent years, it's been the same; whatever prep
7 work, it turns out to be about the same or the same for
8 testimony. If I quote a rate, I usually charge \$100 or more
9 for the sworn testimony, but I rarely get that.

10 Q. Now, as you sit here today, how much money have you
11 made on this case so far?

12 A. None. I have not received any payment.

13 Q. Okay. How much are you going to charge on this case
14 so far?

15 A. It's not what I'm going to charge. It's what the
16 county or the state will give me. I think we have made an
17 agreement that my pay would be a fixed amount. I think it's
18 5,000; but because of delays and everything, they may add
19 something to that.

20 Q. Okay. Now, you spoke with Mr. Coffey and Mr. Frost
21 prior to coming here today; correct?

22 A. Yes.

23 Q. And how many times have you spoken with them?

24 A. I can't count. They came -- I think I testified
25 before that they came to Chicago and we met for a couple of

1 hours, two, three hours, and then we have spoken on the
2 telephone and by Internet a few times; and then, of course,
3 since I have come here to Troy to prep for the trial. So, it
4 might be three, four times, something like that.

5 Q. Okay. Now, in medical school, are you trained to
6 write reports?

7 A. Well, I don't know. You are certainly trained to
8 write notes in the chart. There are certain formats for that.
9 In terms of writing reports, no, I don't think there's any
10 formal instruction on that.

11 Q. Okay. If you were going to review an autopsy, do you
12 normally write a report of that?

13 A. I might. It depends on what my task is.

14 Q. Did you write a report in this case?

15 A. No.

16 Q. Why not?

17 A. I asked do you want a report and I was told no.

18 Q. So, the defense told you that they didn't want a
19 report?

20 A. At a prior legal proceeding, that's where that arose;
21 and on this particular occasion, no report was requested.

22 Q. Okay. And if you wrote a report, do you know, would
23 it have had to have been turned over?

24 A. I don't know. It depends on what the jurisdiction of
25 the local rules are. I would assume so.

1 Q. So, by not writing a report, you don't have to turn
2 over anything in advance?

3 A. I don't have to turn over anything. It would be the
4 counsellors. That's their responsibility, and I don't know
5 what would happen in this place.

6 Q. Okay. Now, you were in the courtroom yesterday for
7 Dr. Sikirica's testimony; correct?

8 A. For part of it, yes.

9 Q. And have you spoken to the attorneys about what other
10 witnesses have said?

11 A. I think we discussed the part about Dr. Sikirica's
12 testimony that I heard. I didn't hear the cross. I heard the
13 direct examination, and we did talk briefly about that.

14 Q. Have you read any testimony from any other witnesses?

15 A. In this particular proceeding?

16 Q. Yes.

17 A. I don't think so. I don't think I have been provided
18 any transcripts or anything like that, no.

19 Q. Okay. Have you read Dr. Jenny's testimony from a
20 prior proceeding?

21 A. I have read her -- the testimony in the prior
22 exercise, and I'm trying to think whether I have read anything
23 on this one. I don't think so.

24 Q. Have you read Dr. Sikirica's testimony from a prior
25 proceeding?

1 A. Yes. I believe there was a transcript of that.

2 Q. Okay. And what about Dr. Waldman?

3 A. Good question. I don't remember.

4 Q. Okay. And do you know who he is?

5 A. I couldn't tell you right now.

6 Q. Okay. If I told you he was the pediatric
7 neuropathologist or the neurosurgeon -- I'm sorry. The
8 pediatric neurosurgeon, does that sound familiar?

9 A. No.

10 Q. Okay. Now, if you had a chance to assess [REDACTED] in
11 person, wouldn't that be the preferred way to conduct an
12 autopsy?

13 A. That is, perform the autopsy myself?

14 Q. Yes.

15 A. Sure. That would be great. I couldn't do that,
16 obviously.

17 Q. Okay. So, then, you would agree with me that Dr.
18 Sikirica, he had a bit of an advantage over you; correct?

19 A. Well, I'm dependent upon what evidence was collected,
20 photographs, samples, and that would, of course, be the other
21 doctor's responsibility. In terms of what he thinks and what
22 he sees, then I would have to see for myself based on the
23 objective evidence I have.

24 Q. Okay. But the doctor that actually got a chance to
25 look at, to feel, to cut into the body, to take the slides,

1 that doctor has a bit of an advantage over you; doesn't he?

2 A. He does have some advantages, but if proper evidence
3 has been preserved, it's not a major deficit in my opinion, no.

4 Q. Now, I want to talk to you about your testimony
5 regarding preexisting head traumas.

6 A. Okay.

7 Q. It's common that you testify regarding preexisting
8 head trauma; isn't it?

9 A. It is a fact in many cases that I'm involved in, yes.

10 Q. In fact, in a large percentage of cases that you have
11 testified in the last five, ten years that involved a subdural
12 hematoma, you found a preexisting one. Is that correct?

13 A. I don't know what the percentage is. It could be
14 three-quarters, 75 percent, 80 percent, for some reason seem to
15 have older chronic lesions.

16 Q. Okay. Well, as you sit here today, can you tell me a
17 case that involved a subdural hematoma where you did not find a
18 preexisting one?

19 A. Yes. That happens from time to time; as I say, maybe
20 20 percent of the time.

21 Q. Can you tell me a case?

22 A. I'm trying to think. I don't tabulate them that way,
23 but it happens that some infants do have no evidence of chronic
24 subdurals. It's all acute. I can't recall a case right now,
25 but it wouldn't be that uncommon.

1 Q. Okay. Now, I want to talk to you about a case that
2 you testified in previously.

3 A. Okay.

4 Q. You testified in a case where a woman was on trial
5 for the death of a child in her care, Louise Woodward. Does
6 that ring a bell?

7 A. I remember the case very well.

8 Q. Okay. And in that case, you found a preexisting head
9 injury. Is that correct?

10 A. Yes.

11 Q. And when that case was concluded, you turned over
12 slides that you had received from the attorneys over to a
13 member of the media. Is that correct?

14 A. With the okay and blessing of the attorneys involved.

15 Q. Okay. You didn't have the blessing of the parents
16 involved; did you?

17 MR. COFFEY: Object to this.

18 THE COURT: Overruled.

19 A. I didn't have any contact with the parents at all.

20 Q. Okay. So, essentially, a slide is a part of the
21 baby's body. Is that not correct?

22 A. Yes. I agree.

23 Q. So, you turned over a part of that dead baby's body
24 to the media. Is that correct?

25 A. By that definition, yes.

1 Q. And then you got a lot more interviews in the media
2 after that; didn't you?

3 A. There were some in connection with a civil trial that
4 resulted after the criminal trial was concluded, and there were
5 some interviews, yes.

6 Q. Okay. And are you aware of the fact that you were
7 criticized by medical ethicists for doing this?

8 A. I'm not sure what you mean. I know there were a
9 number of people who did not like what I had to say and took
10 deference to my -- you know, exceptions to my opinions and
11 criticized me in one form or another.

12 Q. Do you know if the medical ethicists criticized you
13 turning over parts of that little boy to the media?

14 MR. COFFEY: Objection, objection.

15 THE COURT: Sustained.

16 A. I don't know who --

17 THE COURT: Sustained.

18 Q. And were you compensated between 60 and \$70,000 for
19 that trial?

20 A. Oh, goodness, no. I don't know what the total
21 compensation for the criminal trial was, lots of trips to
22 Boston. I don't know. It could have been 25, 30, \$40,000. I
23 doubt it was 70.

24 Q. Would it surprise you if I told you that you
25 previously testified that you were compensated between 60 and

1 \$70,000 for that trial?

2 A. I didn't recall but, if you have that, so be it.

3 Q. And are you aware that after the Louise Woodward
4 trial, 50 physicians signed a letter stating the following --

5 MR. COFFEY: I object to this as hearsay.

6 THE COURT: Sustained.

7 Q. Are you aware that after the Louise Woodward trial,
8 50 physicians signed a letter --

9 MR. COFFEY: Objection.

10 Q. -- disagreeing with your opinion?

11 MR. COFFEY: This is the same question I
12 objected to. She continues.

13 THE COURT: The objection is sustained. It's
14 not relevant what other doctors may have felt about this
15 witness' testimony in another case. That's the basis for
16 which I'm sustaining the objection.

17 Q. Doctor, is it fair to say that -- I'm sorry. Let me
18 ask you about one more case before we move on. Do you remember
19 a case of John - I'm not sure how you say it; P-O-Z-E-F-S-K-Y -
20 in Cuyahoga County, Ohio?

21 A. Podolski maybe?

22 Q. Maybe.

23 A. Yeah, vaguely.

24 Q. Do you recall that case?

25 A. Not much, but I remember the name, yes.

1 Q. Okay. And that individual was on trial, and in that
2 case, it was the prosecution and the medical examiner's
3 contention that in that case, the infant died from blunt force
4 trauma. Do you recall that it was your contention in that case
5 that the infant died from a birth complication, not blunt force
6 trauma?

7 A. I know I had a conclusion that was different from
8 that of the ME and the prosecution's theory of the case and,
9 frankly, I don't remember the details of that to be able to
10 give you much more.

11 Q. Is it fair to say that your specialty is in the area
12 of disease and the central nervous system?

13 A. Yes.

14 Q. The majority of your work is looking at areas such as
15 tumors, viruses, epilepsy, the nervous system?

16 A. Yeah, anything to do with the nervous system,
17 including those things, yes.

18 Q. You don't operate on people?

19 A. Certainly not.

20 Q. You have not written many articles dealing with the
21 treatment of children who are the victims of abuse?

22 A. I'm not a treating physician. That's not an area of
23 my expertise, so I haven't written about that.

24 Q. Okay. And you haven't written about recognizing and
25 treating children who have head injuries; correct?

1 A. No. That's not my expertise at all. I'm not a
2 clinician.

3 Q. When you come to work day in and day out, you are not
4 looking at CT scans of a child; right?

5 A. Well, day in and day out, I don't do that but,
6 certainly, that's part of the exam that I do and then it's
7 important for me to see that information if it exists. So, I'm
8 certainly very familiar with CT scans of children and anybody
9 else.

10 Q. But you are not, as you stated before, a board
11 certified radiologist; correct?

12 A. No, I'm not, no.

13 Q. Okay. And you don't have special training in
14 radiology that a person who is board certified in radiology
15 would have; correct?

16 A. In the broad sense, certainly not. I have gone
17 through the residency. I must say that the neuroradiologists
18 in hospitals and I both learned to read CT scans at the same
19 time, because they would come to look at the brain, look at the
20 scans and correlate them. So, in a sense, we evolved together.
21 Obviously, their training is much more encyclopedic than mine.

22 Q. You don't need to use CT scans often in the course of
23 being a pathologist, being that you can cut right into the
24 brain and look at it; correct?

25 A. Well, these days, not. When I was involved with my

1 group of neurosurgeons for 13 years, the first thing I did
2 every day going into the operating room was look at the scans
3 on the wall of the operating room. I looked at CT and MRI
4 scans every day. I don't do that much any more, but I did at
5 one time.

6 Q. Okay. So, you really don't look at CT scans much any
7 more; correct?

8 A. When they are available in a case, of course, I do,
9 which is easily half the time.

10 Q. Okay. And when they are available in a case, that's
11 a case that you have been retained on as an expert witness
12 primarily for the defense; correct?

13 A. True.

14 Q. When was the last time you performed lifesaving
15 efforts on a child?

16 A. Lifesaving efforts? Never.

17 Q. Now, it's fair to say you never met [REDACTED];
18 correct?

19 A. Correct.

20 Q. You never treated him?

21 A. Never treated him, never met him.

22 Q. You didn't make any of the cuttings on the slides
23 that you presented?

24 A. That was done by somebody else, Dr. Sikirica or his
25 staff.

1 Q. Okay. And would you agree with me that you have
2 previously written the following: "It is sometimes an issue at
3 trial, often exploited by defense attorneys, that apparent lack
4 of external injury in connection with a massive intracranial
5 trauma somehow correlates better with accidental injury, rather
6 than a willful one. This interpretation is fallacious and
7 should not be conceded"?

8 A. I probably wrote that in the first edition of my
9 book, yes. I believed that at one time.

10 Q. So, you have previously written that, Doctor?

11 A. That wouldn't surprise me, no.

12 Q. And what is the book you brought with you today?

13 A. This is my second edition of my *Forensic*
14 *Neuropathology* book.

15 Q. May I look at that for a moment?

16 A. Certainly.

17 Q. And is this still a textbook you use?

18 A. Well, yeah. I refer to it once in a while myself. I
19 hope other people do, too.

20 Q. When did this come out?

21 A. Some of these have a 2009 date on them. Some of them
22 have 2010. I don't know about that one.

23 Q. And that statement that I just read to you, does it
24 appear in this book?

25 A. I don't know. Somehow I doubt it, but it could have.

1 Q. Okay. If I told you that you previously testified
2 that it appears in that book --

3 A. Okay. Well, I don't remember.

4 Q. So, the book that you just told me that you still
5 use, that statement I just read to you, it does appear in that
6 book?

7 A. I couldn't say. I don't recall.

8 Q. Okay. But would you agree with me that it is
9 something you have written?

10 A. If you say so. I cannot recall where I might have
11 specifically written that. It would probably be in this book
12 or the prior edition. I just don't remember.

13 Q. Do you disagree with me that you wrote that?

14 A. No. I have no basis to do that.

15 Q. Okay. Now, this picture of [REDACTED] --

16 MS. BOOK: May I approach?

17 THE COURT: Yes, you may.

18 Q. People's 17 in evidence. I believe that was the same
19 picture on your slide show earlier?

20 A. I believe it is, yes.

21 Q. If I could just show the jury, so they know what we
22 are referencing. Thank you. Now, you mentioned that [REDACTED]
23 had puffy eyes in that picture?

24 A. Yes, I did.

25 Q. Doctor, isn't it true that his eyes could be puffy

1 due to volume replacement?

2 A. Yes.

3 Q. And what does that mean?

4 A. It means, in terms of the intravenous fluid this
5 child is receiving, they overshot and produced -- you know, put
6 more water, essentially, into the system than he could handle,
7 and it could very well produce edema and swelling like that.

8 Q. Okay. And couldn't it also come from congestion in
9 the soft tissue due to the cerebral edema?

10 A. No. The cerebral edema wouldn't do that. You have
11 to look at volume replacement issues, which is certainly fair.
12 You have to look at other things, disruption of venous drainage
13 from the eye cavity, infection there, which we have talked
14 about. There may be some other issues that could produce that.

15 Q. Okay. But you do agree with me that the puffiness to
16 [REDACTED]'s eyes could certainly have been the result of volume
17 replacement?

18 A. It could be a contributing -- a component of it. I
19 know he has other things going on, but I could not say volume
20 replacement doesn't play a role here. It could.

21 Q. Okay. Now, I want to talk to you about the retinal
22 hemorrhages in this case for a moment.

23 A. Okay.

24 Q. You have never been declared an expert in dealing
25 with issues of the eyes; correct?

1 A. Exclusively, no; but as part of my purview of
2 neuropathology, the eye is part of the brain, and I have
3 certainly offered testimony regarding various pathologies in
4 the eye before.

5 Q. You have never treated a patient for an eye disorder;
6 have you?

7 A. As a medical student, but not since, no.

8 Q. Okay. So, about 50 years ago?

9 A. Yes.

10 Q. Now, are retinal hemorrhages indicative of child
11 abuse?

12 A. No.

13 Q. Have you previously testified that they are highly
14 correlative of child abuse?

15 A. They correlate -- in cases of alleged child abuse, a
16 high percentage of such victims have retinal hemorrhages.
17 Whether it's probative of that condition or causative, I have
18 serious issues with that.

19 Q. Okay. Well, have you previously testified that:
20 "There was a strong correlation in abusive head injury in
21 children. A large percentage of these babies will have retinal
22 hemorrhages"?

23 A. Of alleged child abuse by somebody's definition,
24 that's true.

25 Q. Okay. So, there is a strong correlation between

1 abusive head injury in children and retinal hemorrhages?

2 A. In alleged child abuse victims. The criteria that
3 are used are sometimes not very reliable, but that statement is
4 widely publicized; and with that understanding, I agree.

5 Q. Okay. So, if there is abuse -- let's just say there
6 is abuse.

7 A. Uh-huh.

8 Q. If there's an abusive head injury in a child, there's
9 going to be strong correlation between that and retinal
10 hemorrhage; correct?

11 A. Such a child will likely have retinal hemorrhages.

12 Q. And have you previously testified that: "So, in
13 fact, when you have a child abuse case, you are much more
14 likely to find retinal hemorrhage than when you don't have a
15 child abuse case"?

16 A. I think that's probably true, yes.

17 Q. And wouldn't it be fair to say in this case we have
18 extreme retinal hemorrhage?

19 A. There were retinal hemorrhages. In terms of their
20 extent, I haven't seen photographs, I don't think, of the
21 retina, but retinal hemorrhages were not a controversial issue,
22 though they were there.

23 Q. In both eyes; correct?

24 A. Correct.

25 Q. Now, let me talk to you for a moment about aging

1 subdurals. Okay? You age subdural hematomas based on the
2 studies of adult brains. Is that correct?

3 A. That's what the 1936 study used, correct.

4 Q. And the majority of articles you have written, they
5 deal with conditions in adult brains. Is that correct?

6 A. There are a number of differences, and I'm not sure
7 what -- how that affects the issues but, of course, there are
8 differences between adult and children's brains.

9 Q. Okay. Such as a child's brain is much more fragile
10 than an adult's brain. Is that correct?

11 A. It depends. The child's brain is not any more
12 compressible than an adult's. It's liquid. It's water. Water
13 is incompressible. So, it makes no difference what the
14 percentage of water is in a child's brain versus an adult's
15 brain. The things that are different is the brain case or the
16 skull is different. The brain may be deformed more easily with
17 a child on impact than with an adult. That's an important
18 thing. How this all affects what happens to the child's brain
19 that is subjected to forces is still pretty controversial.

20 Q. Okay. Well, there's no hard scientific data to
21 suggest that a baby's brain is going to heal at the same rate
22 as an adult's brain; correct?

23 A. It is certainly capable of undergoing certain healing
24 reactions, probably better than an adult. There may still be
25 some capacity to regenerate nerve cells, regrow nerve fibers,

1 than an adult might have; and it may have some capacity that's
2 different in terms of what cells do what in the healing
3 reaction. So, that may be so.

4 Q. Okay. And, so, in terms of dating a baby's subdural
5 hematoma, you are working on an assumption, then; correct?

6 A. Yes. It is based upon what the inflammatory reaction
7 is, the healing reaction and so forth. And true, the study
8 that most people use to help age and date subdurals was based
9 on adults. Over the 40 years or so, I have asked myself the
10 same question. How accurate is it? And whenever we get the
11 rare case, and it is rather rare, where you know precisely when
12 that subdural began and now you've got the slides and you can
13 look at it, it fits pretty well with the so-called Munro,
14 M-U-N-R-O, and Merritt, M-E-R-R-I-T-T, paper, the one that I'm
15 referring to from 1936.

16 I haven't found a great deal of discordance. It
17 might be a day off, maybe two days or something, from the
18 formula that's there. I have never found any great departure.

19 Q. Okay. Now, in this edition of your book, the one
20 that you brought with you today, you say that neonatal subdural
21 hematoma is said to be uncommon to rare with only nine cases
22 reported as of 1978. Would you agree with that?

23 A. Neonatal?

24 Q. Yes.

25 A. If that's so, that would be incorrect, because the

1 subsequent papers have come out that show that up to 25
2 percent, maybe even more, of normal births, the children have
3 subdural hematomas.

4 Q. Okay.

5 A. That's a lot. And it may be up to '78, nobody had
6 the technology to look or they were wrong. It appears to be
7 much more than that.

8 Q. Okay. And Dr. Jenny talked to us a little bit about
9 that in this courtroom; that there's been subsequent studies
10 where, through MRI images, babies that they wouldn't have
11 otherwise thought had any indication of hematomas were scanned
12 through the MRI'S and were found to have, actually have
13 bleeding. Are you familiar with that study?

14 A. There are several now. I'm not sure which one she
15 quoted, but I don't disagree with that.

16 Q. Okay. Well, in the study that she referred to, all
17 of these babies were asymptomatic. Are you familiar with that?

18 A. Yeah. The majority of them are, and that's the
19 surprise. First of all, you don't scan normal babies, but
20 somebody did and used ultrasound and other things and said,
21 "Whoa, we have a greater incidence here than we thought."

22 Q. Okay. And when I say asymptomatic, what do I mean?

23 A. To anybody's naked eye or clinical exam, they're
24 fine.

25 Q. Okay. And are you aware that all of these babies

1 were rescanned at a month old and there was no more finding of
2 it?

3 A. In at least one study, that's so. It appears that
4 the majority of these birth related subdurals do resolve
5 themselves. Precisely what percent don't, we don't know.

6 Q. Okay. So, the majority of these resolved themselves
7 by one month with absolutely no signs of having had it;
8 correct?

9 A. Apparently so, apparently so.

10 Q. Now, from your testimony, it sounds as if [REDACTED]
11 [REDACTED] was a very, very sick baby?

12 A. I think he was.

13 Q. It sounds like he was a very sick baby pretty much
14 from birth from your testimony?

15 A. Yeah. I don't know how -- in terms of the outward
16 appearance of how this kid was. He had some significant
17 pathologies going on that magnified and culminated, I think, in
18 his death; but how he was, you know, to look at the baby and
19 all of that as a baby, I don't know.

20 Q. Well, would you be surprised to know that his
21 treating pediatrician who saw him in the hospital at only five
22 days of birth, the one that saw him for all of his regular
23 checkups after that, said he was quite healthy?

24 A. No. It wouldn't surprise me.

25 Q. But you said he was a very, very sick baby?

1 A. He sure was. He died; in the last month or so of his
2 life or in the last period of his life, desperately ill.

3 Q. Oh, I don't argue with you that [REDACTED] was a
4 very, very sick baby from September 21st, perhaps a little
5 before that. But it sounds to me like you are saying from May
6 4th, when [REDACTED] was born, up to the date he died, that
7 he was an extremely sick baby?

8 A. I didn't know that. I don't know that.

9 Q. Well, didn't you say earlier that, what you saw of
10 the heart, it appeared that he suffered a heart attack about a
11 month before his death?

12 A. At least, yes.

13 Q. Okay. Now, do you know -- are you familiar with the
14 fact that his mother took him to Samaritan Hospital on
15 September 13th because he had a rash from a chemical wipe on
16 his face?

17 A. There was some skin problem. I'm not sure what it
18 was, but he was examined at that time.

19 Q. And do you know that his mother had called the
20 pediatrician when he hadn't made a bowel movement in a few
21 days?

22 A. I didn't recall that but --

23 Q. Okay. Well, if it's in the records, would you
24 disagree with me?

25 A. I don't remember.

1 Q. So, are you telling me that a mother that's calling
2 the doctor because her son hadn't made a bowel movement in a
3 few days, a mother who takes her son to the hospital because he
4 has a little bit of a rash on his face due to a chemical wipe,
5 that her son is going to suffer a heart attack and no one is
6 going to take him anywhere?

7 A. The kid did suffer, quote, a heart attack. That is
8 there. Whether this was symptomatic, recognized by anybody, it
9 appears not.

10 Q. Doctor, you are telling me that [REDACTED], a
11 month before his death, suffered a heart attack and no one has
12 any idea; they all go about their business?

13 A. Yes.

14 Q. Doctor, isn't it much more true that [REDACTED]
15 suffered this as an agonal event?

16 A. No. You don't get collagen and scarring on the heart
17 in three days. This is a longer lasting lesion than that, and
18 it doesn't have to be clinically evident.

19 Q. How many hearts have you looked at under the
20 microscope?

21 A. Thousands.

22 Q. Thousands?

23 A. Many thousands.

24 Q. And how many autopsies have you done where you have
25 had to actually look at the heart and determine someone's cause

1 of death?

2 A. Every time I did an autopsy; and virtually every time
3 I examined an autopsy case, whether I did it or not, I'm very
4 interested in what the heart pathology shows. So, I'm probably
5 looking -- in virtually every case that I am selected on,
6 there's slides of the heart there. I look at them all.

7 Q. Okay. Well, didn't you tell me earlier that you
8 could count probably on your hands how many death certificates
9 you have signed?

10 A. That's right.

11 Q. Because your primary duty is to look at brains on
12 autopsies. You do brain autopsies; correct?

13 A. That's my focus, but I'm a pathologist and I look at
14 all the organs.

15 Q. Okay. But you look at them to no end. You don't
16 have to sign a death certificate and determine the cause and
17 manner of someone's death; correct?

18 A. Not my job.

19 Q. Okay. Do you agree that it's a fact that the vast
20 majority of seriously head injured infants and children, where
21 automobile and other major accidental trauma can be ruled out,
22 acquired their injuries as a result of abuse?

23 A. That's a common assertion. And in some age groups,
24 that would be true. As a blanket statement, that's overly
25 broad.

1 Q. Okay. Is that something that you testified to
2 before?

3 A. It's conceivable.

4 Q. Okay. So, to now sit here and say that it's overly
5 broad, do you agree with me that you testified to that
6 statement before?

7 A. It depends. I have been testifying in court for 40
8 years. So, I don't recall.

9 Q. Okay. Do you agree with me that you testified to
10 that in a prior proceeding in this case?

11 A. I don't know.

12 Q. Well, do you recall being asked this question and
13 giving this answer:

14 "Question:" --

15 MR. COFFEY: May I have a page, please?

16 MS. BOOK: Yes - I'm sorry - 2198.

17 MR. COFFEY: Okay, 2198. I'm all set.

18 Q. "Question: Do you agree that it is a fact that the
19 vast majority of seriously head injured infants and children,
20 when automobile and other major accidental trauma can be ruled
21 out, acquired their injuries as a result of abuse?

22 "Answer: I wrote that in the earlier edition of my
23 book, and similar statements have been revised to take a
24 broader view of those things.

25 "Question: Well, you have said that in the past;

1 haven't you?

2 "Answer: Pardon me?

3 "Question: You have said that in the past, though;
4 haven't you, Doctor?

5 "Answer: I have, sure.

6 "Question: The vast majority of those children were
7 abused?

8 "Answer: That is what I said. I would not write
9 that today and I haven't written that today."

10 A. Fair enough. That's my position.

11 Q. Would you agree that, as a general rule, most
12 children do not die from intracranial bleeding associated with
13 vaginal birth?

14 A. Yes. That's true.

15 Q. And most children who do experience intracranial
16 bleeding are asymptomatic; correct?

17 A. It would appear so, yes.

18 Q. And the children that experience this bleeding, they
19 clear up on their own without medical intervention, the studies
20 have shown; correct?

21 A. Well, some certainly will, and then it's discovered
22 and treated, hopefully, but there's a lot of silent hemorrhage
23 that goes on that nobody knows about.

24 Q. Okay. That was going to be my next question to you.
25 So, if they rebleed, often, they are not clinically

1 significant; right?

2 A. Well, maybe clinically significant but not
3 recognized. It may come down the road apiece, where something
4 happens and then the full story emerges; but many times, it's
5 unknown and unappreciated.

6 Q. Okay. Most of the time, it's not going to impact the
7 child at all; correct?

8 A. It may not.

9 Q. And do you say that it can rebleed with minor trauma
10 or no trauma?

11 A. Subdurals can, sure, and do.

12 Q. Okay. When an infant is first born, they have a very
13 wide anterior fontanelle; correct?

14 A. Yes.

15 Q. Show me where your anterior fontanelle is.

16 A. Right up here at the top of the head.

17 Q. Okay. And is it open when an infant is first born?

18 A. It is not ossified. That's the soft spot in the
19 baby's head, and I think everybody knows where that is.

20 Q. Okay. So, when you say it's not ossified, the bone
21 hasn't closed in that area?

22 A. The skull hasn't closed over it, no.

23 Q. Okay. So, it's easy to see the top part of the brain
24 on ultrasound; correct?

25 A. Yeah. Ultrasound should reveal that, yes.

1 Q. Okay. And in your experience, are you aware that
2 it's common for premature babies to get an ultrasound done of
3 their head?

4 A. It's seemingly more common nowadays than it was. I
5 have no idea what percentage, but it's frequently done.

6 Q. Well, you know that [REDACTED] had an ultrasound done;
7 correct?

8 A. I'm told, yes.

9 Q. Okay. And he had it done when he was ten days old;
10 correct?

11 A. I don't remember the date, but he was young.

12 Q. Okay. Have you seen that study?

13 A. No.

14 MS. BOOK: May I approach, Your Honor?

15 THE COURT: Yes, you may.

16 Q. I'm going to hand you what's in evidence as People's
17 Exhibit 9 and ask you to just look this over.

18 A. It's a report. I have seen that report. I haven't
19 seen the study itself; or if I did, I don't remember.

20 Q. Okay. So, do you agree with me that [REDACTED] had an
21 ultrasound done when he was ten days old?

22 A. Well, let's see what the date is. Date of birth, May
23 4th, and exam date, May 14th. So, that's ten days.

24 Q. Okay. And the results of that were normal; correct?

25 A. That's what they said; no abnormal fluid collections

1 or problems. So, normal study.

2 Q. So, no bleeds?

3 A. Maybe, maybe not. This report says they didn't see
4 anything, and that does not necessarily mean that there wasn't
5 a bleed there. It could be the level -- below the level of
6 detection or the technology that was involved maybe missed it.
7 I don't know. All I know is that they said it was negative.

8 Q. Okay. Well, you agree with me that this is a nice
9 wide open area to view; correct?

10 A. Yes.

11 Q. And the large subdural hematoma that [REDACTED] had upon
12 autopsy, that would have been at a place that was easily viewed
13 through that area; correct?

14 A. If he had it at that time, sure. It would have been
15 very evident.

16 Q. Okay. Well, isn't it your opinion that it dates back
17 to birth?

18 A. The process began at birth probably. The evolution
19 of this fluid collection wasn't immediate. It took four and a
20 half months or thereabouts to get to that place.

21 Q. Okay. So, it was your opinion that it came at the
22 time of birth; correct?

23 A. He probably had bleeding over the brain at the time
24 of birth that evolved into what we saw.

25 Q. So, it's your testimony that, even though he got this

1 ultrasound - that this is a good place to view; that the bones
2 are nice and wide open so you can look in - that he must have
3 been bleeding but it was missed?

4 A. That's my opinion. I think the study, for whatever
5 reason - I'm not an ultrasound expert - it has a sensitivity
6 and an insensitivity and it's not always accurate.

7 Q. Okay. Now, Doctor, would you agree -- I will take
8 this back. Actually, I'm going to leave this up here. I'm
9 going to ask you another question about it in a minute.

10 A. Okay.

11 Q. Okay. Now, would you agree with me that children who
12 are suffering from bleeds in their brain are going to have
13 abnormal head growth?

14 A. They often do; not always, but they often do.

15 Q. Okay. Well, would you agree with me that [REDACTED]'s
16 head grew normally?

17 A. For the first three examinations, apparently so.
18 He's hovering underneath the 25th percentile and starts
19 approaching it at the age of under three months according to
20 this chart.

21 Q. Okay. What about the first one? Where is he
22 actually?

23 A. He's below the fifth percentile, meaning most kids
24 are going to have -- 95 percent of them are going to have
25 bigger heads.

1 Q. Okay. So, it's your testimony that he has a bleed in
2 his brain, but 95 percent of kids have a bigger head than him;
3 correct?

4 A. At birth, yes.

5 Q. Okay. And when was the next one taken?

6 A. The next one seems to be at one month of age.

7 Q. Okay. And what was his -- what did his head
8 circumference put him; in what percentile at that point?

9 A. He's moved up to the 25th percentile or thereabouts.

10 Q. Okay. And in your opinion, would the birth bleed
11 have rebled by this point in time?

12 A. It may have. I don't know. His head is growing,
13 which kids do; and what component of that might be due to a
14 bleeding problem or the complications of it, I don't know. I
15 have no way of knowing.

16 Q. Okay. So, it's your opinion he has a bleed in his
17 brain. It could have possibly rebled. But 75 percent of kids
18 still have a larger head than him?

19 A. Yes.

20 Q. Okay. And then at two -- actually over two months,
21 because his two-month visit, because of how he was discharged
22 from the hospital, didn't actually occur until July 23rd;
23 correct? So, he was actually more than two and a half months
24 old; right?

25 A. About two and a half according to this. He's

1 approaching the 50th percentile. I don't know. The chart
2 isn't that precise, but he's slightly under the 50th
3 percentile.

4 Q. Slightly under the 50th percentile at that time?

5 A. Right.

6 Q. And, so -- even though, at this time, he's certainly
7 having rebleeds by now; right?

8 A. Yeah. He must have had something going on in there.

9 Q. Okay. To get that massive layering effect you told
10 us about?

11 A. He didn't have all those layers at that time, but he
12 must have had some of them.

13 Q. He only has two more months left to live. So, by the
14 time you see this layering effect, he only has two more months
15 to get these layers. So, at this time, he certainly has had to
16 have rebled; correct?

17 A. I think so.

18 Q. And at this point in time, 50 percent of kids still
19 have a bigger head than him?

20 A. That's what it says.

21 Q. Even though he has all this bleeding going on in his
22 brain?

23 A. I don't know how much all this bleeding is. He
24 probably had some. The microscopic certainly indicates that
25 this process must have been going on at that time. It just

1 hadn't declared itself yet.

2 Q. And haven't you previously testified that, when a
3 child has a subdural hematoma in their head, that their head is
4 going to be at the 95th percentile?

5 A. There's no way I would know that. Some of them are;
6 some of them aren't. I mean, there's no direct link. They may
7 have a head that's much bigger than that. There's nothing that
8 says a chronic subdural has to be at 95th percentile. That
9 wouldn't be true.

10 Q. Okay. Doctor, do you recall, at 2203 and 2204, being
11 previously asked this question and giving this answer:

12 "Well, would you expect to see an increased growth
13 rate if there was, in fact, a growing subdural hematoma inside
14 the infant's brain?

15 "Answer: I would expect to see that. Some children
16 somehow -- either the brain is shrunken and somehow head
17 enlargement is not needed to compensate. I don't have a good
18 explanation. But when you see children with CT scans that look
19 like that, usually their heads are in the 95th percentile of
20 circumference."

21 A. Okay.

22 Q. Do you recall being asked that question and giving
23 that answer?

24 A. I don't recall, but it's there. You read it to me.

25 Q. And in fact, if you take a look at that growth chart

1 again, [REDACTED] was only in the 25th percentile at the end of
2 July; right?

3 A. I don't know about the end of July. That would be
4 when he was one month old?

5 Q. When he was almost three months old.

6 A. Two and a half puts him at -- somewhere between the
7 25th and 50th percentile. I don't know. It's not precise
8 enough to pull off in terms of head circumference.

9 Q. Okay. And when you were previously asked if you
10 would have expected that he would have had a bigger head in
11 July, you testified that you would have expected that. Do you
12 recall that?

13 A. Sure. That would be reasonable.

14 Q. So, you would have expected that he would have had a
15 bigger head in July?

16 A. Yeah.

17 Q. But, in fact, he didn't?

18 A. Okay.

19 Q. Now, you said that this could be the result of
20 multiple, like five or six, individual impacts. Is that
21 correct?

22 A. No. I am talking about the subdural hematoma now.
23 Interval bleeds, yes; impacts, I have no idea. There could be,
24 maybe not.

25 Q. Okay. So, you don't know if this is five or six or

1 seven different episodes; right?

2 A. Well, certainly bleeding episodes. That's evident
3 from the slides. In terms of what attended them or caused
4 them, I have no idea.

5 Q. And you don't know if it could have been two
6 different impacts that rebled two or three different times?

7 A. No way to know.

8 Q. Or three that rebled once?

9 A. No way to know.

10 Q. And the difference between a fresh bleed and a
11 rebleed, can you tell that under the microscope?

12 A. Yes.

13 Q. How can you tell that?

14 A. A fresh bleed -- well, a fresh bleed, you can see
15 intact red blood cells and some early healing reactions.
16 Whether that is due to an impact or some injury or something
17 else or simply a spontaneous rebleed, there's no way to know.

18 Q. If someone did have an existing subdural hematoma,
19 would a greater intensity of trauma lead to a higher chance of
20 rebleeding?

21 A. Yes, probably. I think prior subdural would lower
22 the injury threshold. I think we know that. How much, I don't
23 know.

24 Q. And is it common that people with significant head
25 trauma are going to develop complications?

1 A. I think that's fair to say.

2 Q. Such as pneumonia?

3 A. Pneumonia could be there, depends on what their
4 condition is.

5 Q. Now, have you seen people with head trauma develop
6 pneumonia?

7 A. Would I what?

8 Q. Have you seen people with head trauma develop
9 pneumonia?

10 A. Yes, certainly. If they are on a respirator, they
11 are most certainly going to get a pneumonia of some sort.

12 Q. Okay. You talked a little bit on your direct about
13 aspiration. What's the difference between aspiration of a
14 normal secretion and a chemical aspiration?

15 A. Probably different. Your normal secretions, they
16 obviously contain bacteria and, so, that may lead to whatever
17 infection or reaction would come from that. If it's a chemical
18 aspiration, namely food or gastric contents, that's a horse of
19 a different color. That would propel into the respiratory
20 tract and potentially into the lung, corrosive material that
21 would destroy the lung. So, the picture would be somewhat
22 different.

23 Q. So, do you agree that someone could aspirate on their
24 normal secretions?

25 A. Yes.

1 Q. Such as saliva?

2 A. Yes.

3 Q. And microscopically, it's not going to look the same
4 as someone who aspirated vomit; correct?

5 A. Probably not. It may be limited to the
6 tracheobronchial tree and may never reach the periphery of the
7 lung.

8 Q. Okay. So, microscopically, it's not going to have
9 that chemical burn effect; correct?

10 A. No.

11 Q. So, someone could aspirate without having a chemical
12 burn effect; correct?

13 A. Correct.

14 Q. And would you agree with me that there's a risk of
15 aspiration with head trauma?

16 A. Of course, there is.

17 Q. Because if you can't cough and protect your airway,
18 you are at a higher risk; right?

19 A. That's part of the problem, and there may be, again,
20 intubation and failure to clear secretions. There's a whole
21 bunch of things that go along with that, but what you say is
22 okay.

23 Q. Okay. And you are going to be vulnerable to
24 pneumonia; correct?

25 A. Yes.

1 Q. And if you do lose a period of consciousness and you
2 become more vulnerable, isn't it possible that you could
3 aspirate?

4 A. Yes.

5 MR. COFFEY: Objection. There's no evidence
6 that this child was unconscious at any time from any blow
7 to the head. There's no evidence of that.

8 THE COURT: The objection is overruled.

9 Q. So, if you lose a period of consciousness and you
10 become more vulnerable, isn't it possible that you could
11 aspirate?

12 A. Yes. That's true.

13 Q. And if you aspirate, it's possible that you are not
14 going to be able to clear your airways; correct?

15 A. That's part of it, yes.

16 Q. Okay. And you might be more susceptible to bacterial
17 disease or anything else; right?

18 A. Of course, yes.

19 Q. And do you agree with me that someone who is on a
20 ventilator for two days is going to pretty much develop
21 pneumonia?

22 A. It's hard to predict. There's quite often an element
23 of pneumonia that develops, but the spectrum is quite wide. I
24 can't necessarily predict what they will have, but it wouldn't
25 surprise me that some element, after two days on a respirator,

1 would occur.

2 Q. Okay. Now, it's medically possible to have both a
3 fresh bleed and a rebleed at the same time; isn't it?

4 A. Well, I think fresh bleed/rebleed sort of means the
5 same thing. I'm not sure what you mean there.

6 Q. Well, could I have a new bleed and a rebleed at the
7 same time?

8 A. A new bleed and a rebleed, you are using words that
9 mean the same to me.

10 Q. Okay. Could I have a rebleed and a bleed to a
11 different area at the same time?

12 A. Yes.

13 Q. That's medically possible?

14 A. Sure.

15 Q. So, if I had older subdural hematomas to my posterior
16 fossa, they could possibly rebleed while I got a new, fresh
17 bleed that wasn't there before?

18 A. That's true. That could happen.

19 Q. You stated that [REDACTED] was probably septic upon
20 arrival at Samaritan Hospital?

21 A. I think that's likely, yes.

22 Q. Okay. It may not have set in all the way yet at that
23 point in time?

24 A. Well, clearly, this isn't an on and off situation.
25 He was a sick baby. He had evidence of, probably, an infection

1 going on. And when you look at the microscopic slides, to
2 backdate it is more than 36 hours old. So, it's inconceivable
3 to me that he wasn't infected and probably septic by the time
4 he got to the hospital.

5 Q. More than 36 hours old from the time they were taken
6 on September 25th?

7 A. From the time of death. I think he was in the
8 hospital about 36 hours.

9 Q. Okay. So, from the time of death on September 23rd?

10 A. Yes.

11 Q. Okay. Now, Doctor, would you agree with me that head
12 trauma can cause DIC?

13 A. Yes, it can. How that exactly works -- head injured
14 people frequently do have coagulopathy problems and the
15 mechanism is rather complicated.

16 THE COURT: Okay, if I could interrupt here. We
17 are going to take a break at this point in time. Members
18 of the jury, we will break for 15 minutes. During the
19 course of this break, please don't discuss the case.
20 Don't form any judgments or opinions. Don't read or
21 listen to any media accounts. We will take a short break
22 at this time.

23 MR. COFFEY: Can we approach?

24 THE COURT: Yes.

25 (Jury excused.)

1 THE COURT: Doctor, again, during this break, I
2 will ask that you please not discuss your testimony or
3 this case with anyone during the adjournment.

4 THE WITNESS: Yes, sir.

5 THE COURT: Thank you, Doctor.

6 (Brief recess taken.)

7 THE COURT: Please be seated. Bring the jury
8 in, please.

9 COURT OFFICER: Jury entering.

10 THE COURT: Please be seated. The sworn witness
11 remains Jan Leestma. Doctor, I remind you that you are
12 still under oath. Ms. Book, you may continue.

13 MS. BOOK: Thank you, Your Honor.

14 BY MS. BOOK: (Continuing)

15 Q. Now, Doctor, you had mentioned -- we were just
16 talking about DIC, and you had mentioned that head trauma can
17 cause DIC.

18 A. Yes, it can.

19 Q. Now, are you aware of what [REDACTED]'s platelet count
20 was at the time he went to Samaritan Hospital?

21 A. Oh, boy, it was around 100,000 as I recall. I don't
22 remember the exact number.

23 Q. Okay. If I told you it was 115,000, does that sound
24 right?

25 A. It's possible, yes.

1 Q. Okay. Now, would you agree with me that at 115,000,
2 that's a sufficient platelet count to clot blood?

3 A. There are other factors involved. You know, it isn't
4 simply the platelets. It's other things. So, I don't know how
5 to answer that. And I'm not an expert on blood coagulation, so
6 I don't know.

7 Q. Okay. So, you are not an expert on blood
8 coagulation?

9 A. On the specifics of those things. I certainly know
10 what it is and have some insight there, but I can't go very
11 far..

12 Q. Okay. So, you are not really giving an expert
13 opinion here today on DIC then?

14 A. Well, I think he had it. I think he's got pathologic
15 evidence for multiple clotting in different places, but it
16 depends how far you want me to go there.

17 Q. Okay. Well, would you agree with me that hollow
18 organs are more susceptible to DIC?

19 A. Hollow organs? By that, you mean the gut, lung,
20 things like that? That is right.

21 Q. Or the kidney?

22 A. Well, I don't know if the kidney is a hollow organ,
23 but I have to answer I don't know.

24 Q. Okay. Well, even going with the gut, there wasn't
25 bleeding in [REDACTED]'s gut; correct?

1 A. As far as I know, no.

2 Q. Okay. And as you just stated, hollow organs are more
3 susceptible to DIC, yet [REDACTED] was not bleeding into his gut;
4 correct?

5 A. I don't know how far I can go with that. I don't
6 think he had any bleeding in his gut, as far as I know, and I
7 can't go much farther with that.

8 Q. Didn't you say you did a whole thorough review of the
9 autopsy?

10 A. Yes. I looked at the autopsy, read all the slides,
11 read the report.

12 Q. Okay. And he didn't have bleeding in his lungs;
13 correct?

14 A. Apparently not.

15 Q. So, two of the organs that you stated as being more
16 susceptible to DIC did not have bleeding?

17 A. I did not say that they were more susceptible. I
18 said I didn't know.

19 Q. Okay. So, you really are not in a position to give
20 an opinion about DIC then?

21 A. At that level of detail, probably not.

22 Q. Okay. Thank you. Now, talking about how you went
23 over the entire autopsy, you said that you really couldn't talk
24 about the extent of the retinal hemorrhaging to [REDACTED]'s eyes?

25 A. Uh-huh.

1 Q. Were you not provided slides of the eyes?

2 A. Yes, I was, but that's one slice that's 360 degrees.
3 I don't have the rest of it. I have some slices, but he
4 certainly had them.

5 Q. Okay. And you went over the autopsy report in detail
6 that detailed them out?

7 A. Yes.

8 Q. Okay.

9 (Photograph marked People's Exhibit 26 for identification.)

10 Q. Doctor, I'm going to hand you what's been marked for
11 identification as People's 26. Do you recognize that
12 photograph?

13 A. Okay. Let's see. What have we got here? This looks
14 to be the heart.

15 Q. Okay. And do you recognize it to be [REDACTED]
16 heart?

17 A. Oh, I think I have seen it before, and there's some
18 subendocardial hemorrhage there.

19 Q. What does that mean?

20 A. There's hemorrhage under the inner lining of the
21 heart, the inner layer of it, little streaks of hemorrhage
22 there.

23 Q. And that would be fresh hemorrhage; correct?

24 A. It looks -- it's identifiable as at least recent
25 blood. I don't know how old it is. It is still recognizable

1 as blood, not brown stuff or orange.

2 Q. Okay. So, there is fresh blood to [REDACTED]'s heart?

3 A. Sure.

4 Q. Okay. Thank you.

5 MS. BOOK: At this time, I would offer People's
6 26 for identification into evidence.

7 MR. COFFEY: No objection.

8 THE COURT: People's 26 will be received without
9 objection at this time.

10 (People's Exhibit 26 marked for identification received in
11 evidence and marked People's Exhibit 26 in evidence.)

12 THE COURT: Ms. Book, may I see that photo,
13 please?

14 MS. BOOK: Yes, Your Honor. I'm sorry.

15 THE COURT: Thank you. All right. Members of
16 the jury, People's 26 which was just received in evidence
17 is a photo. Again, I would remind you at this time that
18 the photo is not being introduced to arouse any sympathy,
19 passion or prejudice. The photo is somewhat graphic in
20 nature, and I would remind you at this time that you are
21 not to consider factors such as sympathy, prejudice or
22 passion at any time during this case, including during
23 your deliberations.

24 MS. BOOK: I'm not going to seek to publish this
25 at this time.

1 THE COURT: I understand. It is evidence and,
2 therefore, presumably will be made available to the jury,
3 so I wanted to give that instruction.

4 Q. Doctor, can you name a single study showing that a
5 child's chronic subdural hematoma can rebleed from a trivial
6 injury and cause brain injuries?

7 A. Yes.

8 Q. And what is that?

9 A. The study by Piatt, P-I-A-T-T, published in
10 *Neurosurgical Focus*, which is an on-line journal - I'm not sure
11 which neurosurgical association - some years ago. It was
12 relating to this child that I talked about that was trying to
13 pull himself up on a piece of furniture and known to have fluid
14 collections, fell backward and achieved bleeding. There were
15 retinal hemorrhages and nearly died but did survive.

16 Q. Okay. And this was a child that fell backwards?

17 A. Yes.

18 Q. What type of flooring did it fall on to?

19 A. What came before?

20 Q. No. What type of flooring was it?

21 A. The standard carpeted floor over wood or concrete.

22 Q. Okay. Do you know that to be the case?

23 A. I don't recall the exact things from the case report,
24 but it's detailed in there; a hard surface, in any case.

25 Q. Okay. Now, Doctor, if I told you that there was

1 testimony elicited in this case that Mr. Thomas, the man
2 sitting on the end over there -- his baby was crying. He had
3 just gotten into a fight with his wife and he was upset. So,
4 he was bouncing the baby onto a bed, and the baby wouldn't stop
5 crying. So, he bounced the baby harder, and the baby fell off
6 of the bed and fell onto the floor, and this bed was 17 inches
7 off of the ground. There was no bed frame or anything to make
8 it higher. Do you have an opinion about whether or not this
9 would have been sufficient to cause the injury to [REDACTED]'s
10 head?

11 A. What injury? I have to know that.

12 Q. His subdural hematomas?

13 A. The child had a chronic subdural hematoma. That
14 incident certainly didn't cause that. It may have caused some
15 bleeding in it, but it didn't cause the subdural, which clearly
16 was chronic.

17 Q. Okay. So, it could have caused it to rebleed?

18 A. Yes.

19 Q. And can a rebleed put a child over the edge?

20 A. It can.

21 Q. And cause the child's death?

22 A. It can in time, yes.

23 MS. BOOK: Nothing further. Thank you.

24 THE COURT: Mr. Coffey?

25 MR. COFFEY: Thank you.

1 REDIRECT EXAMINATION

2 BY MR. COFFEY:

3 Q. Doctor, whether it can cause a rebleed or whether it
4 did is speculation; correct?

5 A. Is it a medical issue or --

6 Q. I'm sorry. Whether that mechanism you just heard can
7 cause a rebleed --

8 A. Yes.

9 Q. -- and whether that rebleed in this case could have
10 caused possibly death is speculation; correct?

11 A. Well, it's a theory. It could happen that way.

12 Q. A lot of things could happen; right?

13 A. Sure.

14 Q. Doctor, would you agree you could hit the lottery
15 today?

16 A. There is a logic behind how that could evolve into
17 something more serious, yes.

18 Q. Let's talk about what we know. Based upon the
19 evidence, the objective evidence that you know as a
20 pathologist, what is your opinion of the cause of this baby's
21 death?

22 A. Primarily the subdural fluid collection, as we know
23 there wasn't very much, if any, recent bleeding in them. My
24 opinion, as I have stated it before, was bacterial sepsis and
25 infection and shock related to that.

1 Q. All right. Now, Dr. Klein has testified -- and tell
2 me something. With regard to the DIC, would that be an area
3 that would be more appropriate for an infectious disease
4 expert?

5 A. Yeah, it sure would. He would be very experienced
6 and familiar with that.

7 Q. And in terms of aspiration and pneumonia and
8 streptococcal pneumoniae and how that affects the bloodstream,
9 would that doctor be more skilled or more proficient in that?

10 A. From a clinical aspect, a clinician. An internist or
11 pharmacologist or whoever would certainly know more about that
12 in terms of pathology and what it means, how it works. I'm
13 certainly qualified to know about that.

14 Q. If Dr. Klein opined that -- we all have saliva,
15 obviously; correct?

16 A. Sure.

17 Q. And sometimes when you swallow saliva, it can get
18 into, possibly, our lungs; correct?

19 A. Yes.

20 Q. And what are cilia?

21 A. What are what?

22 Q. Cilia, C-I-L-I-A?

23 A. The cilia, they are little cells with hair on the
24 surface of them that are beating that helps to clear our
25 airway, and that is there.

1 Q. And Doctor, if I were to tell you that Dr. Klein,
2 when asked a question, whether you can swallow saliva and
3 whether it would kill you, and he were to say it's unlikely -
4 in fact, I think he said to Ms. Book, "You will be okay if you
5 do that" - would you disagree with that?

6 A. Yes. You would not. We have things that go down,
7 quote, the wrong throat all the time, and we cough it out and
8 that's that.

9 Q. It doesn't cause bacteremia; does it?

10 A. It has bacteria in it.

11 Q. My point is, Doctor, does the process that we are
12 talking about -- it doesn't happen to everybody every day,
13 obviously, or we would all be dead; correct?

14 MS. BOOK: Objection, leading.

15 THE COURT: Sustained.

16 Q. Doctor, the process that you have described,
17 streptococcal bacteremia and septic shock, is not something
18 that happens very often; does it?

19 A. Not if you are walking around. I am sure if you are
20 going to any hospital or any ward anywhere, there's going to be
21 somebody there suffering from sepsis. It's medically a common
22 problem. You know, nobody here is doing that, I hope.

23 Q. Okay. Now, Doctor, do you have any evidence
24 whatsoever in the record or based upon what you have heard that
25 this baby ever aspirated anything of a food nature or vomit or

1 anything that went into his lungs? Do you have any evidence
2 from any medical professional?

3 A. In looking at the lung slides and so forth, we can
4 usually recognize what food is, vegetable matter, milk. I saw
5 nothing like that. I indicated that the gastric contents are
6 acids. I sure know what aspiration pneumonia due to vomitus
7 looks like. It's very different from what these lungs look
8 like. So, could there have been some aspiration? Yeah. But I
9 can't show it to you.

10 Q. Let me ask you this: With a reasonable degree of
11 medical certainty -- I'm not asking about what could be,
12 Doctor. The sun could rise in the west, theoretically, I
13 suppose; right?

14 A. Right.

15 MS. BOOK: Objection, leading.

16 Q. Let me withdraw that. Based upon the medical
17 evidence that you viewed as a competent neuroradiologist -
18 pathologist, I apologize - do you have an opinion whether
19 aspiration played any part in this case based upon the medical
20 evidence that you have seen?

21 A. My answer would be no. I have seen no evidence of
22 that.

23 Q. Okay. And Doctor, do you find any evidence in the
24 record at all, up to the morning of the Sunday that this poor
25 baby, [REDACTED], was taken to the hospital, that this child was

1 ever unconscious at all, ever, by anyone?

2 A. No.

3 Q. So, of course, it's theoretically possible, is it
4 not, that this child could have been unconscious at some point,
5 theoretically; correct?

6 MS. BOOK: Objection, leading.

7 THE COURT: Sustained.

8 Q. Well, is there any evidence that you found in the
9 record of this child ever being unconscious?

10 A. Had been unconscious, no.

11 MR. COFFEY: That's all I have, Judge. Thank
12 you.

13 THE COURT: Ms. Book, anything else?

14 **RECROSS-EXAMINATION**

15 **BY MS. BOOK:**

16 Q. Doctor, can you lose consciousness due to a head
17 trauma?

18 A. Say that again.

19 Q. Can you lose a period of consciousness due to a head
20 trauma?

21 A. Sure. Loss of consciousness is a common
22 accompaniment to head trauma.

23 Q. And if you are unconscious and you swallowed saliva
24 or something into your lung, would you be able to cough it out?

25 A. You might or might not. It depends on how deeply

1 unconscious you are. Those kinds of reflexes are preserved for
2 a while. If you are deeply comatose, then you don't have those
3 guarding reflexes any more. So, it's hard to predict. An
4 unconscious person certainly can respond to something coming
5 down the back of the throat and can cough it out but sometimes
6 not.

7 Q. And when [REDACTED] arrived at Samaritan
8 Hospital, he did have mucoid in his throat; didn't he?

9 A. He did have what?

10 Q. Mucoid, green substance?

11 A. Mucous stuff?

12 Q. In his throat?

13 A. I don't know. At autopsy, he seemed to have some
14 mucoid material in the upper airway; but at admission, I don't
15 know.

16 Q. And he wasn't able to maintain his airway when he was
17 admitted to Samaritan Hospital?

18 A. Of course. That's one of the first things they do,
19 is put a tube in and guarantee air transfer.

20 Q. And that was because he wasn't able to maintain his
21 own airway; correct?

22 A. Apparently so. He was comatose, and I don't know the
23 status of breathing, whether he had any output or not, but
24 that's what you do.

25 MS. BOOK: Thank you. Nothing further.

1 MR. COFFEY: Thank you, Doctor. You are free to
2 leave.

3 THE COURT: Doctor, you may step down. Thank
4 you.

5 MR. COFFEY: Thank you, Doctor.

6 THE COURT: All right. Members of the jury, as
7 we talked about a little earlier, we are going to stop at
8 this point in time. It's my understanding, from having
9 spoken to the defense, that they have one more witness
10 left. That witness will be available to testify first
11 thing Tuesday morning. So, I'm going to ask that you
12 report back here Tuesday morning at nine o'clock. Okay?
13 You will have, obviously, Monday off, but we will resume
14 Tuesday morning right at nine o'clock.

15 During the course of this three-day break,
16 please do not discuss the case among yourselves or with
17 anyone else. Do not read or listen or view any media
18 accounts reported in this case. Do not visit any premises
19 mentioned during this trial. Do not conduct any research
20 about this case. Do not request or accept any payment in
21 return for supplying any information about this case. Do
22 not form any judgments or opinions about this case. And
23 if anyone attempts to improperly influence you, please
24 report that directly to me.

25 Again, over the course of this break, this